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**HEALTH INSURANCE SYSTEMS IN FINLAND AND ITALY:
ISSUES AND POTENTIAL DEVELOPMENTS**

Relatore:

Chiar.mo Prof. Roberto Zanola

Correlatore:

Chiar.ma Prof.ssa Gianna Lotito

Candidato:

Gabriele Bosco

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Introduction

The aim of this thesis is to analyze and compare the health insurance systems of two different countries, Italy and Finland, defining the issues they currently face and identifying potential developments that could help maintain the positive aspects of these systems or improve the wellbeing of the people.

I chose this topic while working on my Master's Degree in Finland; this decision was guided by my personal interests, but it is a relevant topic for the economies of both of these countries. I am currently working at an insurance company, and a subject like this is also relevant to my future job prospects. This topic was new to me when I began this research, and I found the analysis and system comparison process challenging. For my research, I consulted government and insurance websites as primary sources and used books and scientific papers related to the topic as secondary sources.

In the first chapter, I define the word insurance, describing what an insurance contract is, why it is important for society, and what main types of insurance a person may stipulate. The role and importance of insurance have changed over time, gaining progressively more value due to the evolution of society and the needs of citizens. In the second part of this chapter, I focus on health insurance, a type of coverage established only in recent times but which has become essential in our world since it was first implemented. Not only can insurance policies vary in nature, but different types of overall health insurance systems can also be found among different countries. I will show how private health insurance coexists with or

substitutes for the coverage guaranteed by public health insurance in most OECD countries.

The second and third chapters are dedicated more specifically to two countries in particular: Finland and Italy. I develop a socio-demographic analysis of each country from a future-oriented perspective, considering the lifestyles of the citizens as well as the main diseases that cause death among a given population. Differences in organization, financing and quality of these two systems are highlighted: Finnish healthcare, based on the Scandinavian model, is a three-level, publicly-funded system with organization of public healthcare taking place principally at the municipal level, while Italian healthcare is organized at the regional level. The quality of healthcare services received in these countries is the best among the European countries, but they both suffer from issues involving long waiting times and increased out-of-pocket expenditures. Because of this last reason, private health insurance contracts have risen, especially among employees who need additional coverage, to shorten the waiting list for care by paying a premium in advance.

In the fourth chapter, I draw comparisons between these health insurance systems and the scheme proposed by Randall P. Ellis, Tianxu Chan and Calvin E. Luscombe in their research paper “A Comparison of Health Insurance Systems in Developed Countries,” defining commonalities and differences while highlighting which aspects of each health insurance system could potentially be used to improve another if implemented. I then discuss the sustainability of the systems in these two countries as well as their efficiency in terms of welfare, finally presenting several suggestions to improve health insurance systems in the future.

Chapter I: INSURANCE AND HEALTH

1.1 What is insurance

In an ideal world, everything would flow smoothly: no worries, all the time we want for holidays, concluding deals with other people, effortlessly taking care of our physical wellbeing with exercise, realizing what we planned in advance without any stress. Unfortunately, we live in the real world. We never expect that a risk of a loss to occur, but when a damaging event happens, we can potentially lose a lot of money. Our goods and lives are always exposed to danger or loss. How can a person prevent this risk?

Despite a behavior of good conduct and taking all possible precautions, there is still a margin where risk exists. Improving the prevention of potential loss is possible, and the most efficient solution is by committing to a contract of insurance.

At its origins, because of a weak social structure, insurance was often used as a form of gambling. Merchants, searching for a way to cover the risks of their activities, used to bet on other boats and shipments through gambling. These first improper uses were banned by Agostino Adorno in Genoa at the end of the 15th century.¹

Thanks to societal structure that developed with the time, a distinction between gambling and insurance was made. Gambling is based on an intent of speculation, while insurance provides a damaged person with a compensatory restoration for his economic loss.

¹ The official documents is called “*Proclama del governatore A. Adorno contro le scommesse*” released on 15 September 1494 in Genoa under authority of the governor Agostino Adorno. Bensa, E., 1884, *Il contratto di assicurazione nel Medio Evo: Studi e Ricerche*. Tipografia marittima editrice, Genova, p. 125.

Insurance is mainly based on two principles. The first one is the idea of transferring the risk of economic loss from one person, the policyholder, to another person, the insurer, who covers potential risks in exchange for a premium.² The second principle is related to risk sharing. Policyholders share similar risks in a common pool, where collective premiums paid in advance by its members have the aim to compensate the future collective loss. Basically, each member pays a certain small sum to avoid facing an uncertain big economic loss, which would exist in absence of insurance.

Until now, we have understood “risk” to mean an uncertain economic loss, but to understand “insurance,” we must include the fundamental elements of an insurable risk since insurers are not willing to cover any or every kind of risk.

An insurable risk must have a determinable and measurable loss, and not only in terms of economic value. The loss’s cause, time, and place are important to properly compensate the policyholder in proportion to the damage suffered. Insurance is based mainly on large numbers, so the greater the quantity of similar risks,³ then the more accurate is the relative prediction of potential loss. External factors cannot influence an insurable risk. A typical example from our society is a speculative intention by a policyholder to obtain an unjustified profit, acting on its source, while a risk, differing from bets, must have a random and accidental nature. The premium paid by a policyholder for the risk must be affordable, though the premium directly depends on the possibility of occurrence and the number of risks present in a common pool.

Insurance is defined by contract. Initially a client requests to be

² This is a basic definition. A single risk can be transferred from a group of policyholders as well to a single or a group of insurers with or without intermediaries.

³ In terms of homogeneous exposure units. Vaughan, E. J. & T, 2008, *Fundamentals of Risk and Insurance*, John Wiley & Sons, Inc, 10th edition, USA, p. 40.

covered against certain risks through a proposal⁴ generally made by an insurance agent who acts as an intermediary. After he receives the proposal, the insured has a term⁵ to refuse or accept it. In a positive case, the insurer makes an official written contract, called an insurance policy, that has to be signed by the policyholder to confirm his will to insure the object of his interest.

For a contract to be effective, it must be related to an interest of a policyholder that exists from the beginning and persists to the entire duration of the insurance. Objects of interest can be persons and every material or immaterial thing, determinable and underterminable, consumable or inconsumable, fungible or non-fungible, movable or immovable, one or more things, etc., that are economically assessable.

Subjects of interest signify a person or a group of persons who need insurance to face an uncertain future event. Interest is measured by the value expressed by the policyholder. This value must be equal to the value insured written in the contract, since the stipulation and for its entire duration. The value may vary because of inflation, becoming lower because of wear over time or higher for implemented improvements. If the real value is not equal to the value insured, an object can be over-insured or under-insured. Over-insurance is virtually impossible, simply because insurance providers do not speculate according to its principle of indemnity.

Under-insurance is possible both from the policyholder side and the insurer side. A policyholder can ask to be under-insured in order to pay a

⁴ It includes general and particular contractual clauses, conditions and obligations for the policyholder and for the insurer. Irrera, M., 2011, *Trattato di diritto commerciale – Vol. X: L'assicurazione: l'impresa e il contratto*, Assago, p. 171.

⁵ It varies between 15 and 30 days, depending on whether the contract requires an additional medical examination. Irrera, M, *op. cit.*, pp. 295-301.

lower premium for a reduced coverage of his interest, while an insurer can put an overdraft⁶ or an excess,⁷ protecting himself from serious and frequent risks, respectively. These two last methods are used to reduce problems regarding information asymmetry. Since future behaviors of insured people cannot be observed prior the conclusion of a contract, an insurer has these options to limit potential cases of moral hazard.⁸ Characteristics of customers are often not visible or obvious to insurers, and without additional information, insurers may assume that only persons with high risk are willing to ask and pay for insurance.

Even with this issue of adverse selection,⁹ there are some actionable precautions to reduce loss: in compulsory insurances like motor third party liability insurance, there is a risk certificate attesting the merit rate of a driver, while in non-compulsory ones, an insurer determines a premium based on the observable characteristics of persons or properties and has the right to withdraw from the contract if the insured objects are hit many times from the same accident.

When an accident included in the contract happens, a loss adjuster¹⁰ is in charge to check the actual damage and determine a compensatory

⁶ Portion of damage not covered by insurance. It is expressed as a percentage and its aim is to make the insured more responsible for his actions.

⁷ Amount of money exempt from a compensation in case of accident. It is inserted to avoid minor damages, which are more frequent. Outreville, J.F., 2012, *Theory and Practice of Insurance*, Springer Science+Business Media, LLC., New York, p. 136.

⁸ In this case, an insured person would take more risk than another without insurance, doing reckless actions or carrying out activities without full control, because he knows that in case of damage, someone else will bear the costs. Moral hazard is defined in this case as an ex-post issue since it happens after a stipulation of a contract. Hun Seog, S., 2010, *The Economics of Risk and Insurance*, Wiley-Blackwell, UK, p. 175.

⁹ Another issue related to asymmetry information, adverse selection exists ex-ante. It is not possible to categorize every client as less or more risky, so often an insurer has a lack of information when determining a balanced premium. Gregory Varian Hal R., 2010, *Intermediate Microeconomics – A Modern Approach*, 8th Edition, W. W. Norton & Company, Inc., USA, pp. 722-726.

¹⁰ This person comes from an independent agency and works as a third-party professional figure, avoiding any influences from the different sides involved in a claim. Thoyts, R., 2010, *Insurance Theory and Practice*, Routledge, New York, pp. 209-210.

reimbursement. He informs the insurer about the amount of money his company has to transfer in favor of the insured person affected by the accident.¹¹

1.2 Why Insurance

Researching insurance is affected by the primordial need for security. This need is satisfied primarily by the parents during childhood. Throughout the adult life, a person is searching for an external group with commonalities that can guarantee a sufficient coverage in case of unforeseen events or for certain events that will happen in future. Ancient forms of insurance demonstrate security systems that were developed strictly based on different needs in various ages.

The first maritime trades during the 11th century led to the creation of additional clauses in contracts relating potential risks faced overseas. A mixture of insurance and gambling guaranteed a type of coverage for merchants, but those deals are far from the insurance contracts today.

Different types of insurance were developed in the case of land transportations: despite a large amount of trades, these ones were more secure and they did not need the same quantity of insurances as the maritime transportations required.

Between the 16th and 18th centuries, insurance had a remarkable development. Besides a further spread in the maritime field, coverage was extended more specifically to life risks.

During the 15th century, an increase in cities' population density

¹¹ In case of damage caused by another person, firstly the insurer refunds the insured for a quantity determined previously by the loss adjuster, and secondly the insured has a right of recourse to the guilty, who has to pay entirely for the damage caused. Nigel, B., 2012, *Insurance & Reinsurance*, Sweet & Maxwell, UK, p. 303.

increased the risk of fire. Because of the immaturity and limitations of insurance at that time, insurance was not ready to cover this field until the Great Fire of London in 1666. This disaster showed people how necessary fire insurance was. The fire spread quickly, affecting more than 13,000 houses and main buildings because the predominant construction material at the time was wood. That was the second time that citizens of London witnessed a catastrophic event of such size.

The first life insurances appeared in the beginning of the 15th century. The policyholders in these cases were persons either expecting a child (in which case the pregnant woman would receive the payout of the insurance) or representing a debtor, which would ensure the one owed money would receive it even in the case of the debtor's death.

A modern form of life insurance was created in the 17th century. This was possible only after discovering the mortality rate of the population. Since that moment, rich people had a way to place their money in annuity for their future¹²: the investments made by all investors were transferred to the part of those who remained alive. The investors who survived could enjoy their revenues until their deaths and after that, the full revenue was moved to the State.

The growth of the industrial sector during the second half of the 18th century allowed entrepreneurs to stock large capital, from machineries to products and raw materials, including the production of larger boats and railway construction. The factories were full of workers who worked in terrible conditions: no hygiene standards, low salaries, unsure income. The

¹² This form was called tontine from its inventor Lorenzo Tonti, a Neapolitan doctor and banker who made it his project to rehabilitate the finances of nations that adopted them. The tontine were launched in Denmark and France at the end of the 17th century. Unfortunately, both failed because of a drawback in the design that discourage potential investors from placing money on them. Walford, C., 1868, *The Insurance Guide and Handbook on Fire, Life, Marine, Tontine, and Casualty Insurance*, Wynkoop & Hallenbeck, New York, pp. 14-15, 551-555.

lack of and uncertainty of their wages made it difficult to save, especially because they were easily laid off.

The abundance of factories led to the introduction of an insurance against fire in plants and goods, and a coverage against railway accidents and work accidents. Savings banks were created to provide a future economic support, even for the lower classes.

The economic development of the 19th century contributed to raising the standard of living. The people were surrounded by social protections (pensions, unemployment benefits, health care assistance, etc.) but at the same time they were exposed to new risks (car accidents, air and railway accidents, new forms of accidents at work, domestic accidents using gas and electricity, etc.). These issues requested a new development of the insurance field, allowed also by the expectation of a higher standard of living.

Workers, claiming the right to have assistance at work in case of illness, injuries, inability, unemployment and pension, protested until the first social securities were created. These were first introduced in Germany¹³ and in other nations¹⁴ years later, depending on the regime governing each country.

The first compulsory insurance was for accidents for three reasons: working in factories made certain accidents more frequently; socialists had less hostility to insurance that guaranteed a useful support of the working conditions; and this coverage involved personal liability for damages

¹³ Announced by Otto von Bismarck during a speech in parliament in 1881. In the following years, compulsory insurance was introduced for illness in 1883, for injuries in 1884, and for pensions and inability in 1889. Forster, N., Sule, S., 2010, *German Legal System and Laws*, Oxford University Press, New York, pp. 310-311.

¹⁴ The compulsory social securities were introduced in Austria (1887), Hungary (1891) followed by Norway, Great Britain, Denmark, France and Italy. Da Costa Leite Borges, D., 2016, *EU Health Systems and Distributive Justice: Towards New Paradigms for the Provision of Health Care Services?*, Routledge, New York, pp. 57-63.

caused to third parties.

Compulsory insurances for illness, old age, disability and unemployment were introduced years later. The coverage for this last was particularly criticized, in fact, most of the people were considering unemployment as a result of an incompetence to find a work and it was not intended as a social risk naturally produced by the labor market.

Insurance has had its the greatest development in its history in the twentieth century because the economic and social transformations have been particularly intense worldwide. When people started to worry about losing their high standard of living, it became a necessity for them to find insurance to cover old and new risks. Looking at the new coverages, we find a compulsory liability insurance for drivers of motor vehicles¹⁵ and a remarkable increase in the number life insurances, both of which are directly linked to the improved economic conditions.

When private health insurances were created and were widely used, they were stipulated to cover medical care expenses (medicines, surgical interventions and hospital stays), especially in countries where these expenses were not provided by the public health care.

A difficulty for the welfare state in ensuring adequate future pensions convinced people to subscribe to a complementary pension from insurance companies. Payments are collected in capital, which is then invested to guarantee a supplemental annuity when a policyholder has retired.

The risks people have considered worthy of insurance has changed over the centuries. There is always a search for how to fill a gap between

¹⁵ The motor insurance market became so important that in addition to liability insurance, they started to offer vehicle fire and theft insurances. Today it is estimated that there are a billion motor vehicles insured worldwide.

uncertainty and assurance, often related to past and other's experiences. Needs change, becoming more complex and fragmented with time, especially today where societies have a fast and continuous development.

1.3 Types of Insurance

As we have seen, as the standard of living increases, people realize they would feel more secure with more types of insurance to cover various risks.

Today, we can find insurance for almost everything: from our body to every good and service that we benefit from. I will limit my description to the main types of insurance, which have a great economic impact on our society.

The first step is to distinguish compulsory insurances from non-compulsory ones. Compulsory insurances are mainly related to social security and civil liability. The principle at the foundations of these mandatory insurances is the protection to third parties. In the public sector, types of insurance include pensions and those signed by employers to protect their employees from professional injury and sickness. In the private sector, there is compulsory liability insurance for motor vehicles.

Private insurance is mainly divided in two branches: life and general insurance.

Life insurance requires an insurer to pay an annuity or a capital to one or more beneficiaries specified in the contract if an event related to the life of the insured person occurs, like his death or disability. Customers interested in life insurance can invest their money for a temporary or a whole life insurance. Temporary life insurance could be more appealing for the average consumer because of its affordability;¹⁶ it only covers the death of the insured person during the length of the contract. If the insured person is still alive when the contract ends, then his family receives no money when he does die. The majority of people choose to invest in a temporary life insurance policy because it is quite cheap and it covers their life for a time with a potential capital when they most need it.

Whole life insurance has a higher¹⁷ monthly premium than temporary life insurance. It is divided into two types¹⁸ of policies: whole life insurance and universal life insurance, which share the same basic principles but they vary on the flexibility of the premium paid. In the whole life insurance the premium remains always the same, while in universal life insurance the policyholder can change it during the length of the contract. As the names suggest, both cover a policyholder from the risk of death for his entire life. Besides a death benefit, it also guarantees a cash value¹⁹ that

¹⁶ It has a smaller premium requirement than the premium for whole life insurance. Its duration is for 5, 10, 15, or 20 years and its relative premium paid is directly related to the length: the longer the temporary life insurance contract is, the more a policyholder has to pay annually. The premium does take into account a mortality charge, like the fact that an older customer has a higher probability of dying than a younger customer. Rattiner, J., 2008, *Financial Planning Answer Book, 2009 Edition*, CCHGroup, USA, pp. 3-16.

¹⁷ Premiums of whole life insurance can be higher than temporary ones by 10 or 20 times. This includes the mortality charge counted for the whole life, inflation, fees, cash value, etc. Easton, E.A., Harris, T.M., 2014, *Actuarial Aspects of Individual Life Insurance and Annuity Contracts*, ACTEX Publications, Inc, USA, pp. 6-8.

¹⁸ These whole life insurance policies differ in terms of agreement. Whole life insurance has a fixed premium that does not differ from the start to the end of a policy, while universal life insurance is more flexible, permitting to adjust a premium if a policyholder wants to make variations on the death benefit. Easton, E.A., Harris, T.M., *op. cit.*, pp. 199-203.

¹⁹ It is the saving component of a whole life insurance. An insured can benefit from this cash value during his life with loans and withdrawals, using it to pay the policy or increasing the relative amount of a death

increases over time. Only a minority of customers choose this kind of policy because it is expensive and many events throughout their lives can affect their economic situation, with the consequence that the premium may become unaffordable, causing the customer to drop out from the life insurance agreement and only receiving the remaining cash value. In the case of death of the insured, beneficiaries receive the death benefit agreed upon previously in the contract but not the relative cash value, which goes entirely to the insurance company.

General insurance covers a policyholder against events that could damage his goods, his opportunity to earn money, his assets as a whole, and his body. Apart from some compulsory non-life insurances²⁰ required by law, consumers can decide to buy coverage based on their needs.

General insurance can be divided into three subcategories: insurances for damages affecting goods, those for damages affecting persons, and those for assets or expenses. The last two are part of health insurance.

The first kind of general insurance covers the properties of an insured. This can include any good that an insured buys and owns.²¹ Fire, caused by an ignition of accidental nature, is the main risk covered by general insurance for goods is associated with. This risk coverage can be extended to theft²² and other natural disasters.

Insurances for damages affecting persons ensure coverage in case of

benefit for future purpose. Dorfman, M.S., 1998, *Introduction to Risk Management and Insurance*, 6th ed., Prentice-Hall, Inc., USA, pp. 378-380.

²⁰ Laws require in most countries a compulsory liability insurance for drivers, who have to be economically responsible for damage caused to others. Another compulsory insurance is for employers, who have to be responsible for the activities of their employees. Olliphant, K., Wagner, G., 2012, *Employers' Liability and Workers' Compensation*, Walter de Gruyter GmbH, Germany, pp. 564-576.

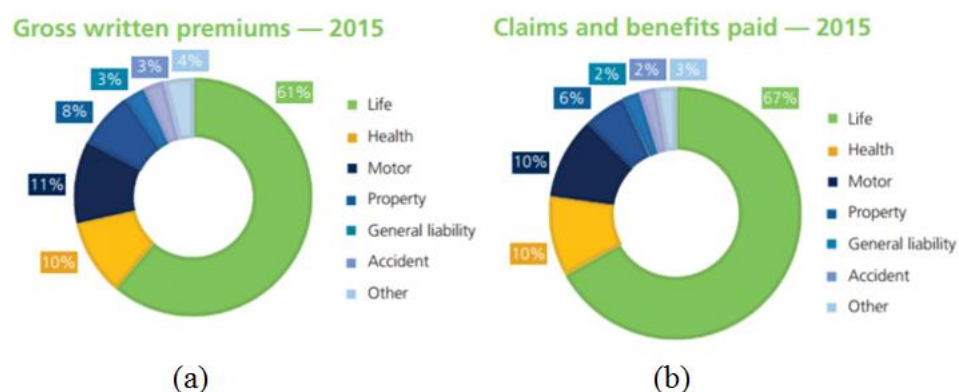
²¹ Particular mention goes to motor vehicles, which have the largest share on the market, followed by houses, airplanes, and boats.

²² Theft was previously combined with fire insurance for motor vehicles, but with new policy options, a policyholder can decide to insure only one or both.

injury or sickness. These events can limit or stop an insured's capacity to work, causing economic hardships for him and his family. Insurances for assets or expenses protect an insured against a risk of a negative variation of his total assets due to requests of compensation for accidental damages caused to third parties²³ or unforeseen expenses.²⁴

Considering these different types of private insurance (Figure 1.1), we can see that life insurance in Europe represent more than the half of the market both in premiums collected and reimbursements done. Health insurance represent one of the larger slices of the policies in non-life insurance market.

Figure 1.1: Insurance market by types in premiums collected (a) and reimbursements done (b)



Source: Insurance Europe, 2006

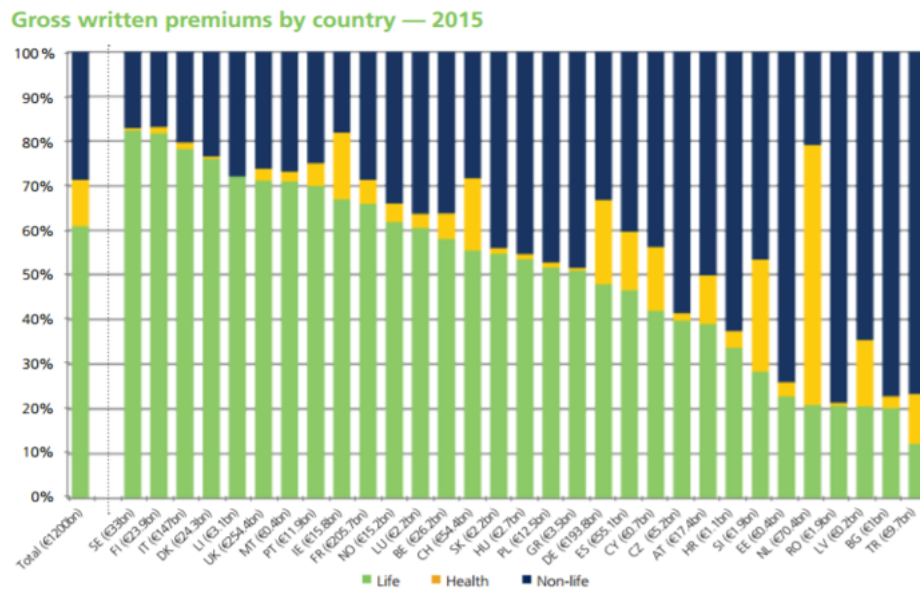
Dividing insurance market in three sectors (life, non-life and health insurance) (Fig.1.2), we can see these values represented in every European country. Total gross written premiums increased by 1,3%, reaching 1.200

²³ It is called liability insurance. It covers damages caused to other persons and their properties or damages derived from errors in professional activities, thus covering the risk that they may be sued and held legally liable for something such as negligence, injury or malpractice. Clarke, M., 2013, *The Law of Liability Insurance*, Routledge, New York, pp. 63-64.

²⁴ Such as unexpected expenses for medicine, check-ups, medical care, transportation, surgery, visits, etc. in health insurance or expenses to stay in hotel if the motor vehicle of an insured accidentally stops on the road and he previously bought an additional guarantee for auto assistance in his motor insurance.

billion euros, between 2014 and 2015.

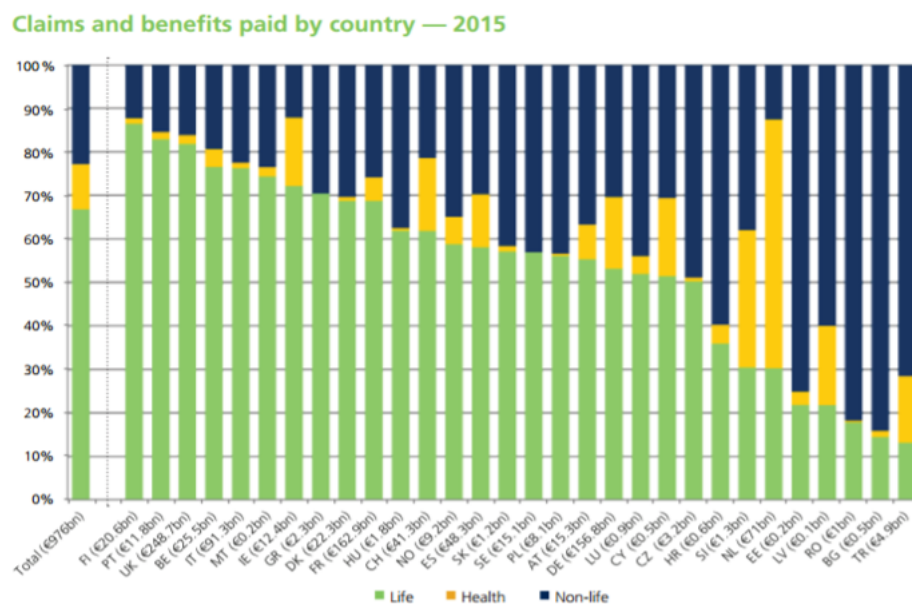
Figure 1.2: Insurance penetration by types in European countries



Source: Insurance Europe, 2016

The payments made by insurers to insured people as reimbursements (Figure 1.3) generally increased by 2,0% in Europe between 2014 and 2015, reaching 976 billion euros.

Figure 1.3: reimbursements paid in European countries



Source: Insurance Europe, 2016

Despite few exception, health policies made by private companies do not have the same economic proportion as life insurance or other non-life insurances put together (Figure 1.1, Figure 1.2, Figure 1.3)²⁵ but, they continue to have an important role to support national healthcare systems to keep our status in healthy conditions.

1.4 The Birth of Health Insurance

Insurance has provided coverage for risks to health only recently. The health field was not interesting for insurance providers until the twentieth century. It was considered overly unpredictable and not attributable to certain statistics. Furthermore, medical care was not reliable because of the scarcity of resources (causing it to be prohibitively expensive) and the lack of guaranteed outcomes. The combination of these two factors made medical care a luxury good enjoyed by a very small group of the population, even in most developed countries. Occasional administration of such services were provided directly at a patient's house because hospitals "were charity institutions that the danger of cross-infection gave well-earned reputations as places of death."²⁶ For this reason families were not use to spend a lot in medical care at hospitals but "It was felt that they should be thrifty and save for the rainy day of illness."²⁷

The first signs of a project aimed at ensuring health coverage did not come from the private sector. Unlike other insurance types, the health

²⁵ European Insurance – Key Facts, August 2016, Insurance Europe, <http://www.insuranceeurope.eu/sites/default/files/attachments/European%20Insurance%20-%20Key%20Facts%20-%20August%202016.pdf>

²⁶ Thomasson, M., 2002, *From Sickness to Health: The Twentieth-Century Development of U.S. Health Insurance*, in *Explorations in Economic History*, Elsevier, New York, p. 233 ss, cit. p. 235.

²⁷ Anderson, W., 1968, *The Uneasy Equilibrium*, New Haven, USA, p. 86.

setting was formed with a public background and was approached by private companies only later. This comes as no surprise: in a field like this one, dominated and pushed by the private sector, just a small group of people were involved and risks were potentially enormous while earning prospects were low.

The conception of right to health was introduced during the French Revolution. During “the French Revolution, these ideas were radically challenged. What used to be considered simply as an act of charity became the duty of all, including the authorities.”²⁸ The first actions implemented were not to ensure support for the individual citizen but to avoid the spread of illness in the society and occurred in the nineteenth century.²⁹ From a political standpoint, the need to guarantee health care was more important than the need guarantee trades or manufacturing, a priority of the state that directly affected directly its population.

The first state with a national coverage of health costs occurred in Germany under the rule of Chancellor Otto Von Bismarck in 1884. This was the start of numerous reforms that led, within two decades, to the introduction of public healthcare for almost all Western countries. By 1920, many countries provided some form of welfare state.³⁰

Insurances that treated issues related to health were exclusively focused on an integration of lost earnings caused by illness, partly because of a reduced importance of medical costs involved and partly for problems related to a distinctive trait of the risk at issue. There were problems

²⁸ Lavastida, J., 1999, *Health Care and the Common Good: A Catholic Theory of Justice*, Unity Press of America, Inc., New York, cit. p. 94.

²⁹ During those years there was a spreading of Enlightenment ideas, which led to the creation of the modern democracies and a change in the connection between state power and population. Zafirovski, M., 2010, *The Enlightenment and its Effects on Modern Society*, Springer, New York, pp. 2-14.

³⁰ Forrest, W., 1969, *Compulsory Health Insurance: “The Next Great Step in Social Legislation”*, in *The Journal of American History*, Vol. 56, Oxford University Press, UK, pp. 190 ss.

regarding the control of factors due to lack of statistical data, creating complexity to overcome problems of adverse selection and moral hazard.

This situation radically changed because of a sequence of factors, which led to a fast development of the insurance market worldwide in just a decade. The reasons for this rapid growth concerned changes in both the demand of healthcare services and the supply of insurance plans. There was an important endeavor to reform the medical profession, starting from the historical review made in this field by Flexner in 1910,³¹ who created a new concept of medical science as “precise, scientific and effective,”³² which reflected in a growth of demand, as patients began to trust doctors, and a rise of costs, as treatments began to be more advanced. A further contribution to the increased popularity of the medical field was due to a partial revolution in the scientific knowledge in that field: new techniques for anti-infection were developed, surgery had incredible improvements, and x-rays started to be applied for diagnostic uses. This development in health services realized a new role for hospitals, which became the place for the election of a new medicine dependent on technologies and more reliable because of new innovations.

During those years of increasing health costs, clinics coped with unstable demand by instituting (since the 1929³³) some prepaid insurance plans for health services. For the first time, there were health insurances for

³¹ The importance of Flexner is on his “emphasis on the scientific basis of medical practice” leading to a fundamental direction to the changes already in place at the time of his report. Cooke, Irby, Sullivan, Ludmerer, 2006, *American Medical Education 100 Years after the Flexner Report in the New England Journal of Medicine*, Massachusett, cit. p. 1339. Flexner, 1910, *Medical Education in the United States and Canada (a report to the Carnegie foundation for the advancement of teaching)*, IV, New York.

³² “By the 1920s...prospective patients were influenced not only by the hope of healing, but by the image of a new kind of medicine: precise, scientific and effective.” Rosenberg, C., 1987, *The Care of Strangers*, HarperCollins Publishers, Inc., New York, p. 150.

³³ The first contract of this type was offered in 1929 from Baylor University Hospital to a group of teachers in Dallas. That agreement provided a supply of 21 days of hospital recovery in exchange for a fixed annual payment of \$6.00. Thomasson, M., op. cit., pp. 233 ss.

a refund of medical expenses instead of a payment for a compensation due to a loss of earning. This was the birth of a new modern policy of health insurance.

1.5 Health Insurance at a Glance

Healthcare nowadays provides many services to its patients, even for new interventions that can save lives in critical situations. But how can they be affordable to everyone?

Many people cannot afford these advanced medical services out of pocket. Healthcare plans, private insurance companies, and national healthcare systems work to guarantee this access to as many people as possible. Financing is implemented through government funding, taxation, compulsory or voluntary insurance, out-of-pocket expenses, donations and other means. A systemic analysis will be reserved until the next two chapters in regards to the Italian and Finnish health insurance systems.

A person chooses an amount of health insurance coverage based on his expected utility considering his age, life status, past experiences, opinions by others who used the services earlier, his risk propensity,³⁴ amount of premium, and other expenses he has to pay to get the quantity of benefits he is interested in.

In the optimal case, an insured gets full coverage with a complete reimbursement for his medical expenses by the insurer. In the real world, such coverage is unlikely because it would be very expensive. Many insurances exclude some services such as dental care, vaccinations, laser

³⁴ It can vary in different times, places and conditions. We cannot take a risk level as given but it is endogenized by the insured. Zeng H., 2007, *Three Essays On Consumer Choice Behavior In The Health Insurance Market*, ProQuest Information and Learning Company, USA, p. 89.

eye surgeries, diets and other things, requiring the patient to pay the full costs of the treatments not covered. These exclusions can involve goods as well: a certain drug could not be covered by insurance, so a patient is encouraged to search for a substitute medicine with the same active principle that is covered.

A reimbursement can be also limited to the insured who benefits for the service requested, which is provided by a designated group of physicians specified in the contract. Even in this case, the patient does not have a choice about his medical treatment; he has to decide accordingly with the doctor.

Insurance can present limitations on the quantity of services available, their price, and the total expenditure. Patients can consume a limited quantity of medical services per time, such as a year. This represents a good way to avoid an overuse of the resources, which have to be available to others as well. Fee schedules may be used to fix prices covered until a certain limit is reached. A patient can compensate the difference with the actual price with out-of-pocket³⁵ expenses. In this case, he could opt for cheaper services that are not burdening directly on his income.

Health insurance increases the demand of medical care services. The logic of why this is can be explained by two ideas. In a situation with an ex-ante moral hazard,³⁶ if a patient has health insurance, and the company is going to pay a medical bill in case of sickness, he has less incentive to do preventive actions, such as keeping and maintaining an healthy life. The financial consequences of his unhealthy choices are passed on to someone

³⁵ Amount of money a person pays directly and is not reimbursed by his insurance.

³⁶ Previous studies were done by Ehrlich and Becker in 1972 through an analysis of optimal insurance and a situation prior the advent of illness. Ehrlich I., Becker G., 1972, *Market of Insurance, Self-Insurance, and Self-Protection*, The University of Chicago Press, Vol. 80, N. 4, USA, pp. 623-648.

else, and he can conduct an unhealthy life: drinking more, smoking more, and exercising less. A second problem is raised by ex-post moral hazard,³⁷ where at a given level of health, a patient decides to consume more medical care because its price is lower out-of-pocket. This is due to a demand curve and the price sensitivity for medical care. People go to the doctor gradually only because they are sick; they consume more medicines because of their low maximum out-of-pocket expenses and demand of healthcare seems unlimited. A solution to this problem can be the introduction of a deductible.³⁸ This direct cost paid out-of-pocket by the insured encourages patients to take preventive actions to avoid small diseases and thus avoid overusing medical services. He remains fully covered for more serious diseases.³⁹

Other methods that make a patient more responsible on his use of medical services and affect his out-of-pocket expenses are coinsurance⁴⁰ and copayment.⁴¹ These payments, combined with a deductible and as part of the out-of-pocket maximum, are used by insurance plans in addition to the premium.

Moral hazard can be found on the other side too. Physicians and providers are paid based on how much medical care they deliver and not how they make their patients healthy. They have incentives to prescribe

³⁷ Concept further elaborated by Mark Pauly. Pauly M., 1968, *The Economics of Moral Hazard: Comment in The American Economic Review*, Vol. 58, No. 3, Part 1, American Economic Association, USA, pp. 531-537.

³⁸ A fixed amount an insured has to pay once a year for health care services prior to what his health insurance begins to pay. Beik J., 2013, *Health Insurance Today: A Practical Approach*, Elsevier, USA, p. 94.

³⁹ Empirical data can be found in the paper written by Bardey D., Lesur R., 2004, *Optimal health insurance contract: Is a deductible useful?*, Elsevier, France.

⁴⁰ It is a payment from the a patient that equals a proportion of the charged price; the remaining proportion is paid by the insurer. Jacobs P., Rapoport J., 2004, *The Economics of Health and Medical Care*, Jones and Bartlett Publishers, Inc., USA, pp. 69-70.

⁴¹ A fixed amount an insured has to pay for a particular service covered by the insurance. Kongstvedt P., 2003, *Essentials of Managed Health Care*, Jones and Bartlett Publishers, Inc., USA, p. 320.

more goods and services than a patient really needs, raising healthcare expenses. The amount of healthcare a patient receives is not chosen by the patient but is determined by his doctor, who should have the knowledge to assist him properly. A solution to this issue may be patients researching for signaling⁴² from his licenses obtained or indirect information from feedbacks from other patients and the queue in front of his office.

A patient often does not know if he is going to be reimbursed for a certain service or medicine by the insurer. A patient faces this problem of asymmetric information because with moral hazard he cannot observe neither the output nor the input. He does not know exactly what his doctor is doing, what he should do and what the consequences are, because even if a physician does the right thing, a patient may still have a disease. A doctor could do the right thing and his patient dies or he does the wrong thing and his patient survives. Taking this into consideration, it is not easy to estimate the proper costs for medical care.

If we could overcome every moral hazard issue, we would have really good insurance services, but at the same time patients could pay very high or unsustainable insurance costs.

As I said previously, health insurance does not cover every cost patients could face during their lifetime, but rather different contracts cover specific services' costs. These may involve expenses for pharmaceuticals, visits to doctors, inpatient and outpatient care, rehabilitation, and other medical services.

Excluding the fact that a patient cannot be insured against diseases

⁴² It refers to actions taken by an informed party for the sole purpose of credibly revealing their private information. Varian Hal R., 2010, *Intermediate Microeconomics – A Modern Approach*, 8th Edition, W. W. Norton & Company, Inc., USA, pp. 726-730.

that he had before the stipulation of the contract,⁴³ a concept of medical “necessity”⁴⁴ can explain the distinction between services that can be insured and the ones cannot, together with the limitations discussed above.

1.6 Health Insurance in OECD Countries

Health insurance systems vary by country and they can differ from each other based on the coverage they are offering. Public health insurances often do not have enough resources to guarantee an adequate coverage to everyone or to satisfy particular needs. For the purpose of compensating for this inadequacy, public health insurance systems can be supported or replaced by systems that are predominantly financed by premiums paid by policyholders. Customers who are interested in benefitting from additional coverage have to sign a contract with a private company. Usually this participation is voluntary, but in some cases people cannot access medical care services without a private contract.

Starting from this case we can distinguish the different types of coverage that countries have.

⁴³ Insurance must include an element of uncertainty to exist.

⁴⁴ It has been defined through the expertise of physician and providers. Lieberthal R., 2016, *What Is Health Insurance (Good) For?: An Examination of Who Gets It, Who Pays for It, and How to Improve It*, Springer, USA, pp. 9-10.

Table 1.1: Pure Private Health Insurance Systems

Primary	Duplicate	Complementary	Supplementary
Iceland	Greece	Belgium	Canada
	Ireland	France	Hungary
	Mexico		Netherlands
	Norway		Switzerland
	UK		

Table 1.2: Mixed Private Health Insurance Systems (2 types)

D & S	P & C	P & S	C & S	P & D
Australia	Chile	Czech Republic	Denmark	Spain
	USA		Finland	
			New Zealand	
			Turkey	

Table 1.3: Mixed Private Health Insurance Systems (3 types)

P & C & S	D & C & S
Germany	Slovenia
Austria	

P = Primary
 D = Duplicate
 C = Complementary
 S = Supplementary

The first group in Table 1.1 includes just one country: Iceland, which has a primary⁴⁵ private healthcare insurance (PHI). This PHI type covers people who cannot be covered or they are not eligible to receive coverage by the public health insurance. This could be a temporary insurance in the case of a foreigner who stays in the country and cannot benefit from public coverage in the first six months of residence.

The second group represents countries with a duplicate⁴⁶ PHI, including Greece, Ireland, Mexico, Norway, and the UK. In Greece people do not have universal coverage from their public health insurance system mostly due to the recent crisis, which reduced health coverage among the people. This duplicate form covers around 12% of the entire population. Estimate premiums collected in 2015 for health insurance are around 122 million euro with a positive growth of 22,7% since 2014 (99 million euro)⁴⁷.

The duplicate PHI of Ireland does not forfeit definitely the right of people to avail of the public system, but it does for the times when patients benefit from treatments through the PHI. During 2015 around 2.122.000 people were covered with private health insurance, representing the 45,8% of the total population, 1,9% more than 2014. The premiums reached 2.462,4 million euro in 2015, from 2.444,9 million euro registered in 2014.⁴⁸ Most of the Irish choose to have private health insurance because of

⁴⁵ Primary PHI is the only access to health coverage when a country does not have social insurance. Individuals are not eligible to coverage under social insurance or they are entitled to such coverage but they choose instead to be covered by the private one.

⁴⁶ Duplicate PHI offers coverage for health services already included under government health insurance, this guarantees access to different providers or levels of service. Naturally it does not exempt people from contributing to government health coverage programs.

⁴⁷ This amount is separated from accident and sickness insurance premiums, which are respectively 35.173,888 and 25.696,962 million euro in 2015. *Private Insurance in Greece 2015* http://www.eaee.gr/cms/sites/default/files/annual_stat_report_2015_eng.pdf

⁴⁸ Statistics related to the *Private Health Insurance Market in Ireland, 2015* <http://www.hia.ie/sites/default/files/HIA%202015%20Annual%20Report%20English.pdf>

the high costs of medical treatment and accommodation, as well as the inadequate standard of public services⁴⁹.

As written previously, other countries that have a duplicate PHI are Mexico, Norway, and the United Kingdom. Mexico has 82.271.290 people⁵⁰ covered on duplicate PHI, representing around 67,3% of the total population. Norway had 12 times more insured people since 2003; in 2013, in fact, people covered by a duplicate PHI were around 10%.⁵¹ In the United Kingdom the private system guarantees the access to medical services at a time more suitable or earlier compared to National Health Service. The amount of policies in UK grew to 4 million in 2015,⁵² reaching around 4.466 million euro,⁵³ an increase of 2,8% since 2014. We expect a significant increase in premium costs for customers in the following years due to the exit from the European Union that will affect all economic transactions in the near future.

The third group, formed by Belgium and France, represents countries with a complementary⁵⁴ PHI. In Belgium, PHI is composed by mutuelles and private agencies. While mutuelles cover individuals with hospitalization policies, private insurers complement public coverage both for individuals and groups. In 2013 around 3.470.000 persons were covered by mutuelles, an increase of 2,88% from 2012, and acquiring in 2013 a

⁴⁹ *Survey of Public Opinion Towards the Regulatory Structure of Irish Health Insurance 2015* <http://www.hia.ie/sites/default/files/Survey%20of%20public%20opinion%20towards%20the%20regulatory%20structure%20of%20Irish%20health%20insurance%202015.pdf>

⁵⁰ Data collected from OECD, 2016, *Reviews of Health Systems Mexico 2016*, OECD Publishing, Paris, p. 63.

⁵¹ Almost 380.000 Norwegians are insured. <http://www.vg.no/nyheter/innenriks/helse/380-000-nordmenn-har-privat-helseforsikring/a/10129078/>

⁵² Especially because people are more and more dissatisfied from longer waiting times and limitations on treatments. *Demand for PMI increases thanks to corporates* https://www.laingbuisson.com/wp-content/uploads/2017/01/HealthCover_13ed_market_briefing.pdf

⁵³ Value converted from 3.800 million £.

⁵⁴ Complementary PHI completes the part of coverage that is not offered by the national health insurance system and should be paid by the insured with out-of-pocket expenses.

total of 439.468 million euro, around 38.000 million euro more than the previous year.⁵⁵ Premiums collected for private health policies in 2013 are 10.700 million euro from individuals, 5.400 million from groups, and 10.700 million euro for accident insurance.⁵⁶

In France PHI is provided by companies or by government for those who are poor. This insurance covers many of the costs that social security does not. More than 90% of the French have voluntary health insurance plans, mostly through their employers. Other than complementarity, this insurance reimburses services not covered by the national health insurance.⁵⁷

The fourth group is represented by Canada, Hungary, the Netherlands, and Switzerland: countries that have a supplementary⁵⁸ PHI coverage. Canada has a supplementary PHI that covers a share of 10% of individuals and 90% of groups. It insures the cost of prescription drugs, dental care, nursing services and other paramedical ones, ambulance assistance, private or semi-private hospital rooms, and other medical services not covered by the public system. It also guarantees the coverage of services while waiting to get public health insurance. A total of 24 million Canadians have supplementary health insurance, reaching around 5.700 million⁵⁹ euro of premiums in 2015.⁶⁰ In Hungary this supplementary coverage is provided with life or accidental insurance policies but generally private insurance there is negligible.

⁵⁵ *Rapport annuel 2014 de l'Office de contrôle des mutualités*. <http://www.ocm-cdz.be/download/publi/ra2014.pdf>

⁵⁶ *Constat & Perspectives 2015-2016* <http://www.assuralia.be/fr/coin-presse/publications-presse/217-constat-perspectives-2015-2016>

⁵⁷ Such as eye surgery, parodontal care, individual room in hospital and more.

⁵⁸ Supplementary PHI covers additional health services not covered by social insurance.

⁵⁹ Value converted from 8.000 million Canadian dollars.

⁶⁰ *Canadian Life and Health Insurance Facts – 2016 Edition* <http://clhia.uberflip.com/i/726639-canadian-life-and-health-insurance-facts-2016/7>

In the Netherlands, since 2006 basic coverage of health insurance has been compulsory for all the residents, who spent around 15.033 million euro in premiums for supplementary policies and 4.350 million euro for complementary ones in 2015.⁶¹ PHI offers coverage for services such as physiotherapy, dental care, eye care, and birth control methods. It involves around 15 million of people from which 44% of the total policies are made for groups. Switzerland provides universal medical coverage and requires a compulsory insurance paid by the insured according to their income level. This system is flanked by a supplemental insurance that gives outpatient and hospital insurance.

The next groups (see Table 1.2) have a mixed PHI system composed by two or more different types of coverage. Australia, for example, has a duplicate and supplementary PHI, covering private treatments in a private or public hospital as well as a specialist services. Australians with private insurance are around 47% of the total population,⁶² and they are allowed to choose whether they are treated and by which doctor. Services covered include those treatments done by allied health, dentist, physiotherapist, osteopath, and chiropractor. One third of total government health care expenditure is spent on private health insurance, with the government subsidizing 30% of the premiums⁶³ for Australians. In 2016 around 11.329.000 people were covered by private health insurance, with a decrease of the coverage to the all population from 47,3-47,4% during 2014-2015 to 46,9% in 2016. The premiums collected in 2016 were around

⁶¹ *Zorgverzekeraars en zorgfinanciering - Jaarcijfers 2016*
http://www.vektis.nl/images/Jaarcijfers_2016.pdf

⁶² Survey done by the Australian Prudential Regulation Authority (APRA) in 2015, *Privately Insured People with Hospital Treatment Cover Annual Analysis Sex, Age and State*
<http://www.apra.gov.au/PHI/Publications/Documents/1605%20Annual%20PHI%20survey-report%2020151231.pdf>

⁶³ This rebate applies to hospitals, general treatment and ambulance policies.
<http://www.privatehealth.gov.au/HealthInsurance/IncentivesSurcharges/insurancerebate.htm>

15.700 million euro⁶⁴, around 900 million euro more than 2015.⁶⁵

Chile and the USA have a mixed coverage composed by primary and complementary PHI. Chile provides an alternative to the public health insurance system (FONASA), which is private and called ISAPRES. This insurance system is dedicated to the employees who choose a private coverage, especially if they are high-income workers.⁶⁶ They can upgrade the level of services received by paying higher premiums. Low-income and unhealthy workers prefer instead to take part of the public system, generating an issue of adverse selection and consequently causing problems of financial sustainability. Insurance companies offer further degrees of health protection through complementary policies, which include reimbursement of hospital costs, exams, pharmaceuticals, and doctor visits.

In the USA people can choose between public insurance, like Medicare and Medicaid, or a private one, offered through employers or other organizations. People who choose public insurance can benefit from further coverage by subscribing to a complementary policy. In recent years, the uninsured share part of the population decreased to 10%, those who have public insurance are around 20%, and the remaining 70%⁶⁷ opt for private insurance.

In Czech Republic less than 1% of the population is covered by private insurance. This 1% are mostly foreigners who are not eligible to receive public health insurance. The rest of the share is attributable to

⁶⁴ Value converted from 22.330 million Australian dollars.

⁶⁵ <http://www.apra.gov.au/PHI/Publications/Documents/1611-QPHIS-20160930.pdf>

⁶⁶ Cross cross-sectional panel analysis is made in this regard to find a solution through reforms to this problem of adverse selection. Pardo C., Schott W., *Health insurance selection in Chile: a cross-sectional and panel analysis*, 2013, Oxford University Press.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4011169/>

⁶⁷ These shares are based on survey's report. Martinez M., Cohen R., Zammitti E., *Health Insurance Coverage: Early Release of Estimates From the National Health Interview Survey, January–September 2015*, Division of Health Interview Statistics, National Center for Health Statistics.
<https://www.cdc.gov/nchs/data/nhis/earlyrelease/insur201602.pdf>

people looking for supplementary policies for services not covered by social insurance.

The group that is most represented in this analysis has both complementary and supplementary PHI's coverage. Denmark, Finland, New Zealand, and Turkey are part of this group. In Denmark, the share of privately insured is continue growing, reaching around 1,85 million⁶⁸ people in 2013, 300 thousand more than in 2012, with a gross premium income of 245 million euro in 2013, 5 million euro less than the previous year.

Finnish PHI collected 528 million euro in 2015 for voluntary accident and health insurances, with a growth of 9% from 2014 and an increase of more than 40% in the amount of policies during the last five years.⁶⁹

In New Zealand 68% of the population was covered via elective surgical and specialist care policies in 2015, which take part of the duplicate PHI, with 16.450 insured more than 2014.⁷⁰ Comprehensive policies covered 32% of the people. 6.650 less people were insured than the previous year. These policies are a mix and contain duplicate, supplementary, and complementary elements. In 2015, PHI companies acquired a total of 878 million euro⁷¹ in premiums, 50 million more than in 2014 and around 90 million more than 2013.

Private health insurance policies in Turkey are divided into two segments: in-patient coverage, which covers services' costs during

⁶⁸ Trend from 2003 to 2013 reported by the Danish Insurance Association.
http://www.forsikringogpension.dk/presse/Statistik_og_Analyse/in-english/Documents/Health%20insurance.pdf

⁶⁹ *Finnish Insurance in 2015 - Financial overview of Finnish Insurance Companies* <http://www.finanssiala.fi/en/material/Fk-julkaisu-Finnish-insurance-in-2015.pdf>

⁷⁰ *Annual Review 2016 – Health Funds Association of New Zealand*
http://media.wix.com/ugd/606d2f_6b6e10998b3c42549079f0bfaf2f0927.pdf

⁷¹ Value converted from 1.297 New Zealand dollars.

hospitalization, and out-patient coverage, which includes interventions during outpatient treatment and drug costs. In 2016 the total amount of premiums equaled 883 million euro,⁷² 274 million more than 2015 and 364 million more than 2014.⁷³

Spain has a duplicate and primary PHI. Duplicate PHI is used by citizens insured to access health services with shorter waiting times and usually with higher standards than public health insurance. Primary PHI is considered for non-EU citizens who are not eligible for public health insurance. In 2014 15,6% of the population⁷⁴ was covered by PHI⁷⁵ with less than 1% using PHI as a primary system.

The last two groups (see Table 1.3) are composed of countries with a mixture of three different types of coverage: duplicate, complementary and supplementary PHI for Austria and Slovenia; primary, complementary and supplementary PHI for Germany.

In Austria around one third of the population is covered by PHI, which is mostly complementary or supplementary but it can include duplicate elements to guarantee higher levels of services. Premiums collected in 2015 equaled 1.960 million euro, around 80 million euro more than 2014 and 140 million more than 2013⁷⁶.

Complementary health insurance in Slovenia is the most popular, which completely covers co-payments costs for a very large share,

⁷² Value converted from 3.644 Turkish lira.

⁷³ *Direct & Indirect Premium – Insurance Association of Turkey* <http://www.tsb.org.tr/official-statistics.aspx?pageID=1003>

⁷⁴ In this case it includes only people with at least 15 years of age and excludes younger people.

⁷⁵ Data collected through a survey on the use of medical services in Spain for the National Statistics Institute (INE). *Encuesta Europea De Salud En Espana 2014* <https://www.msssi.gob.es/estadEstudios/estadisticas/EncuestaEuropea/pdf/MODULO2RELATIVOweb.pdf>

⁷⁶ Data collected by the Austrian Insurance Association. *Jahresbericht 2015 – Datenteil* [http://www.vvo.at/vvo/vvo.nsf/sysPages/xFFDA3422FD062B89C1257FA200413B58/\\$file/VVO_JB_2015_220x280_WEB_Cover_Datenteil_Einzelseiten.pdf](http://www.vvo.at/vvo/vvo.nsf/sysPages/xFFDA3422FD062B89C1257FA200413B58/$file/VVO_JB_2015_220x280_WEB_Cover_Datenteil_Einzelseiten.pdf)

representing almost 70% of the total population. It does not have tax breaks or any fiscal advantages and it is offered both for individuals and for groups with affordable premiums. It also allows the public sector to shift costs onto the private sector without creating unmet needs.⁷⁷ Supplementary and duplicate PHI are chosen by people who cannot benefit by the statutory insurance or because they need further services not included on the standard public coverage. They represent almost the 2% of the total population.

In Germany around 10% of the people are insured on primary PHI, reaching 8,83 million people who choose to be insured through comprehensive policies, which is 55 thousand people⁷⁸ less than the previous year. Supplementary insurance includes around 24,3 million insured in 2014, representing 23% of the total population, higher than in 2013 when supplementary insured people were around 29,9 million. Premiums collected were 25.775 million euro for primary PHI and 7.766 million euro for supplementary PHI in 2014, for a total amount of 33.541 million euro spent by insured in PHI policies.

This background is represented on the chart in the next page, which includes the countries that are members of the OECD.⁷⁹ The types of coverage described previously are identified with different colors, so we clearly understand the proportion of coverage for primary, complementary, supplementary and duplicate PHI. The countries are in order based on

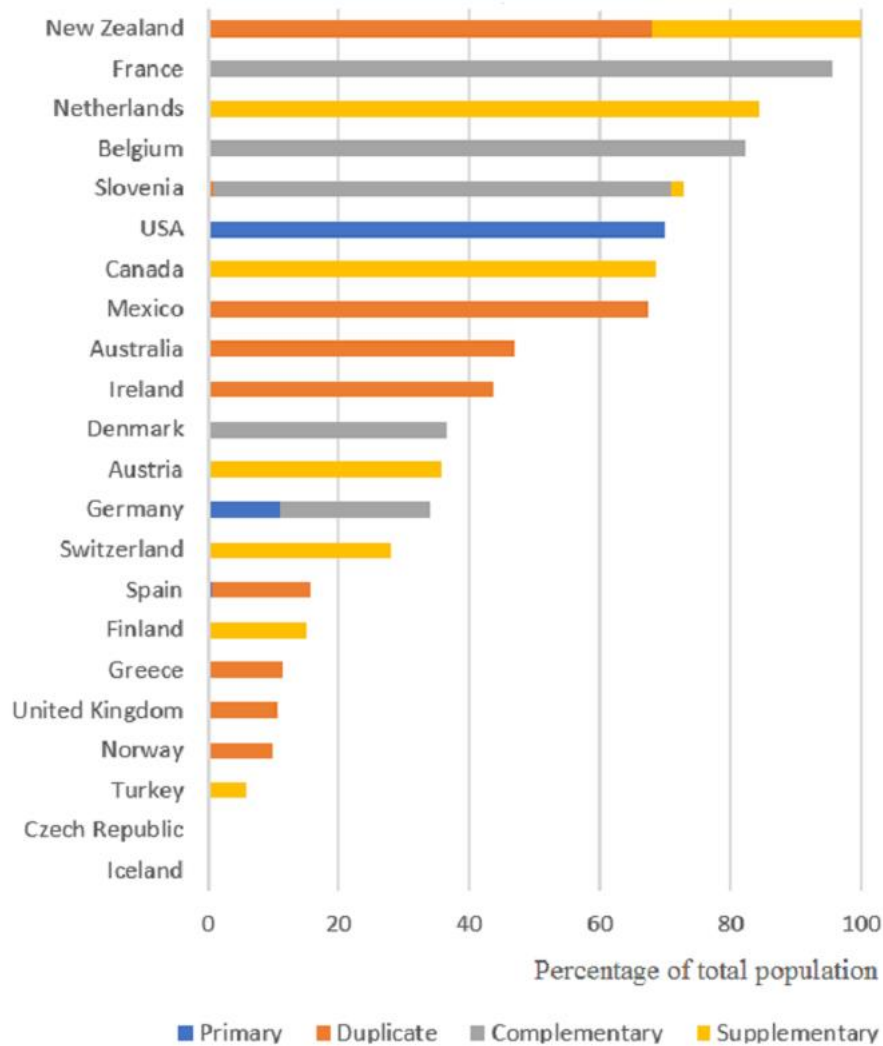
⁷⁷ A SWOT analysis in this context is made to find opportunities to improve this complementary system, which still lack on transparency and equity. http://www.mz.gov.si/fileadmin/mz.gov.si/pageuploads/Analiza/21012016/21012016Report_Making_sense_of_CHI_-_Slovenia.pdf

⁷⁸ Reduction caused by an increase in the statutory membership which takes part of the public health insurance system. *Zahlbericht the private health 2014* <https://www.pkv.de/service/broschueren/daten-und-zahlen/zahlenbericht-2014.pdb.pdf>

⁷⁹ The Organization for Economic Co-operation and Development is willing to promote policies useful to improve the well-being of the people around the world. <http://www.oecd.org/about>

percentage of the population covered by PHI.

Figure 1.4: Private health insurance coverage by type, 2014 (or nearest year)



As we can see in Figure 1.4, PHI has a major role in covering people on their medical necessities in all European countries, especially when the states do not guarantee a complete and adequate assistance with their public health insurance systems.

Chapter II: HEALTH INSURANCE MARKET: FINLAND

This is the first of the two chapters where I will focus deeper on the country. I will start making a sociodemographic analysis of the Finnish population, defining its structure, the epidemiology and outlining a future population trend. Then I will move to the Finnish Health Care System, explaining its organization, its financing and the quality perceived of its services. Last but not least we will see what role voluntary health insurance has in this country.

2.1 A sociodemographic analysis of Finland

Around 5,5 million people live in Finland, which, with 18 persons per square kilometer, is one of least densely populated countries in Europe. Most of the people live in the south-west regions, especially in the three largest cities: Helsinki, Turku and Tampere. The greater portion of people living in the country (Table 2.1) is formed by the middle-aged group with an age between 25 and 49, which represents the 31,2%⁸⁰ of the total in 2015. The birth rate is gradually decreasing; in fact, children six-years-old and younger are 7,6% of the population, 0,2% less than in 2013. Opposite results can be observed for elderly people, where the percentage of persons of 65 years or more is increasing year by year, reaching 20,5% of the total population.

⁸⁰ National Institute for Health and Welfare, 2017, *Statistical Yearbook on Social Welfare and Health Care 2016*, Official Statistics of Finland, Helsinki, p. 23.

Table 2.1: proportion of population by age group, 2010-2015

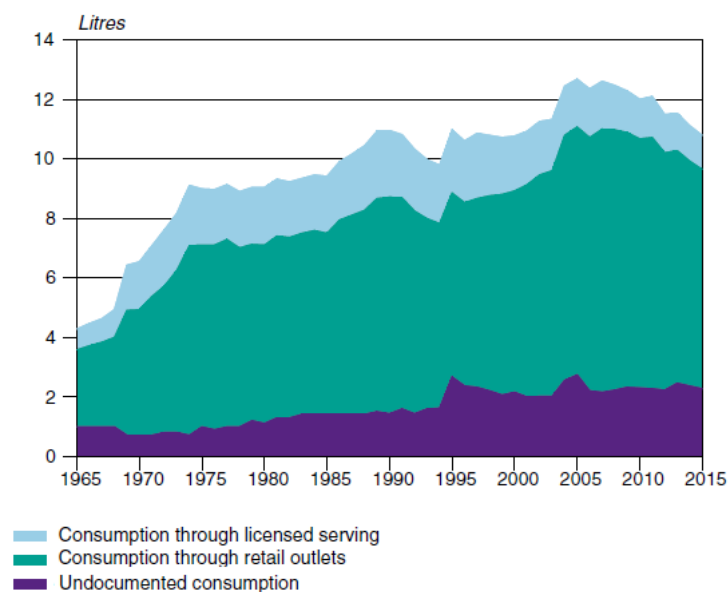
Year	Age group								Total		
	0-6	7-14	15-24	25-49	50-64	65-74	75-84	85+		65+	75+
	%										
2010	7,8	8,7	12,3	32,1	21,6	9,4	6,0	2,1	100	17,5	8,1
2011	7,8	8,6	12,2	31,9	21,3	9,9	6,0	2,2	100	18,1	8,2
2012	7,8	8,6	12,2	31,6	21,0	10,4	6,1	2,3	100	18,8	8,3
2013	7,8	8,6	12,0	31,5	20,7	10,9	6,2	2,4	100	19,4	8,5
2014	7,7	8,7	11,9	31,3	20,5	11,2	6,2	2,4	100	19,9	8,7
2015	7,6	8,7	11,7	31,2	20,3	11,7	6,2	2,5	100	20,5	8,8

Source: Population Structure, OSF, Statistics Finland

Located in Northern Europe, Finland is mostly characterized for a long, cold winter season and its darkness, which can causes mood swings, depression, and mental and behavioral disorders. When I came to Finland for the first time in 2010, some Finnish people described themselves as a “great workers and great drinkers” to underline a cultural background where there is an unfortunate spectrum of addiction, particularly alcoholism. The statistics in Figure 2.1 and Table 2.2 show that the consumption of alcohol has decreased since 2005, probably due to increased taxation.⁸¹

⁸¹ A several alcohol policy was introduced by the Government in 2011 due to reduce alcohol consumption and control the abuse of alcoholic drinks.
http://stm.fi/documents/1271139/3513395/Luonnos+HE+alkoholilaiksi_+221116.pdf/4bcc7307-89e5-4c13-9c78-0f1f8e0fda40

Figure 2.1: Consumption of alcoholic beverages, per capita 1965-2015



Source: Alcoholic beverage consumption, OSF. THL; Valvira

After the peak in 2005, the consumption of alcoholic drinks decreased, reaching a level of 8,52 liters per capita in 2015 for people 15-years-old and older, an amount more than one liter less than the consumption levels pre-2011, when a new alcohol policy was introduced. The VAT was raised to 24% in 2013. These changes should affect the general health of the population, but at the same time they increased the demand of services and medicines to reduce stress among the people.

Table 2.2: Recorded consumption of alcoholic beverages, 1960-2015

Year	100% alcohol, litres	
	Per capita, aged 15 and over	Per capita
<i>Consumption, total</i>		
1960	2,69	1,85
1970	5,84	4,30
1980	7,94	6,31
1990	9,53	7,69
2000	8,59	7,04
2005	9,95	8,23
2010	9,72	8,12
2011	9,81	8,20
2012	9,27	7,75
2013	9,08	7,59
2014	8,76	7,32
2015	8,52	7,13

Source: Alcoholic beverage consumption. OSF. THL; Valvira

Alcoholism is a factor that can trigger chronic heart conditions, causing problems in the circulatory system. Taking a look at the statistics in Table 2.3, circulatory diseases were the main causes of death in 2015, followed by neoplasms, dementia and Alzheimer's diseases, which are the most prominent diseases among older people.⁸²

Table 2.3: Causes of death in Finland in 2015

54-group time series classification	Total	Males	Females	Total	Males	Females
	Number	Number	Number	%	%	%
27–30 Diseases of the circulatory system	19 365	9 471	9 894	37	37	37
04–22 Neoplasms	12 481	6 623	5 858	24	26	22
25 Dementia, Alzheimer's disease	8 580	2 717	5 863	16	10	22
42–49 Accidents	2 161	1 354	807	4	5	3
41 Alcohol related diseases and accidental poisoning by alcohol	1 666	1 288	378	3	5	1
31–35 Disease of the respiratory system	1 940	1 158	782	4	4	3
50 Suicides	731	558	173	1	2	1
Other causes of death	5 378	2 725	2 663	10	10	10
01–54 Deaths total	52 302	25 884	26 418	100	100	100

Source: Causes of death, Statistics Finland

Considering other addictions, consumption of tobacco has particularly decreased over the years, especially among people between 20- and 65-years-old, of which only 17% smoke. Among younger people, between 14- and 20-years-old, users of tobacco decreased from 25% in 2005 to 15% in 2015. People over 65 years represent the exception, with the same percentage of elderly men consuming tobacco and slightly more

⁸² Masuchi Y., 2016, *The place of death among people with dementia in Finland – The change from 1998 to 2013*, Tampere, School of Health Sciences, University of Tampere.

elderly women consuming tobacco.⁸³

Obesity is increasing among the population,⁸⁴ though this conclusion comes only from self-reported data on weight measurements. Half of the adults are overweight and almost 15,8% of the whole population is obese, with slightly more men obese (16,1%) than women (15.7%) in 2015. This level of obesity is up from 11,2% in 2000.

Finland follows the trend of other European countries, giving a perspective of a future that is anything but bright in the next 40 years (Table 2.4), when the portion of people 65 years and older will probably represent around the 28,8% of the total population. There will be a decrease in the birth rate and the young population in general with an average of 1% less than nowadays in the representation of the under 15-years-old.

Table 2.4: proportion of population by age group in Finland, 2020-2060

Year	Age group							Total		
	0-6	7-14	15-49	50-64	65-74	75-84	85+		65+	75+
	%									
2020	7,3	8,9	42,0	19,2	12,7	7,1	2,8	100	22,6	9,9
2025	7,2	8,5	42,1	18,0	11,9	9,2	3,1	100	24,2	12,3
2030	7,0	8,3	41,7	17,4	11,7	10,1	3,8	100	25,6	13,9
2035	6,8	8,2	41,0	17,6	11,3	9,8	5,2	100	26,3	15,0
2040	6,8	8,0	40,6	18,3	10,5	9,9	5,9	100	26,3	15,8
2050	6,7	7,9	39,7	18,4	11,4	9,3	6,6	100	27,3	15,8
2060	6,5	7,8	39,1	17,8	11,9	10,3	6,7	100	28,8	17,0

Source: Population Structure, OSF, Statistics Finland

These data suggest issues in gathering the resources to manage the future demand of health care as there will be more old people who need medical services, especially for chronic diseases.

To understand the role of the Health Insurance System (HIS) in

⁸³ Data gathered from the official statistics offered by THL, the complete report can be found at http://www.julkari.fi/bitstream/handle/10024/131190/Tr15_16.pdf?sequence=5

⁸⁴ Evidence with international comparison can be found at <http://www.oecd.org/health/Obesity-Update-2014.pdf>

Finland, we have to understand how the Finnish health care system is organized, how it works, how it is financed, and to which part of the population its services are oriented.

2.2 Organization of the Finnish health care system

The Health Care System of Finland is divided into three different health care systems, each receiving funding in different ways. They are the Municipal, the Private, and the Occupational health care systems. While Municipal and Private insurances are accessible to anyone who can pay for them, Occupational health care is dedicated for use only by employed people.

The Municipal health care system offers care to all the citizens for a broad range of care and services, especially primary and specialized ones.⁸⁵ This system offers essential care to everyone who needs it and guarantees the universality of assistance. Each municipality sets its own set of services and procedures of care independently, covering every patient within maximum waiting times⁸⁶ previously defined.

The Private health care system mainly offers ambulatory service and specialized medical care. It assures shorter waiting times compared with municipal insurance, but it also requires a higher economic contribution by patients.

Occupational health care system provides services to all workers⁸⁷ to

⁸⁵ While primary care is provided by health centers, specialized care is provided by district hospitals and access to the hospitals requires a referral from a doctor.

⁸⁶ A reform in March 2005, which affected the public sector of health care, set maximum working times to fulfill every task. This schedule was a relevant point of that reform, aiming to assure the best efficiency.

⁸⁷ At the moment around 90% of salary-earners have access to occupational health care. Vidlund M., Preusker U., *Pensions, health and long-term care – Finland, March 2014*, 2014.

prevent risks caused by their job. It is compulsory that every employer guarantees this coverage to his employees.⁸⁸ Employers are also responsible for continually monitoring the health status of employees during working hours. The services of occupational health care are provided by either municipal or private providers.

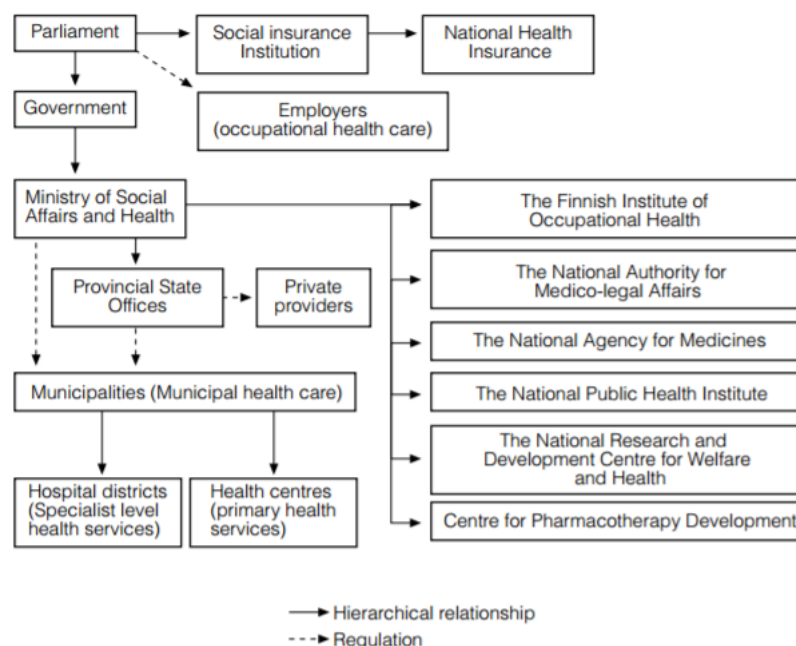
The structural diagram in Figure 2.2 shows organization of the health system, including the institution that coordinates health insurance for the whole population, labeled “Social Insurance Institution,” represented in Finland by KELA. Decisions in national strategies is attributed to the government, which proposes to the Parliament the bills to be discussed. The Parliament has authority over the Social Insurance Institution and regulates the Occupational Health Care through the Occupational Health Care Act. The Ministry of Social Affairs and Health (MSAH) is responsible for planning, directing and implementing social and health policy. Every department⁸⁹ of that ministry is dedicated to a different field, and each coordinates the activities within its relative institution. National Health Insurance is the responsibility of the Insurance Department. Health services, including health promotion and prevention and occupational and pharmaceutical policies, are managed by the Health Department. The Provincial State Offices guide and supervise both private and municipal health care providers. Moreover, they maintain the contact with municipalities in their assigned areas and promote regional and national objectives. Municipalities entrust the organization of specialized health to the hospital districts, while primary health organization is attributed to the

⁸⁸ Employees’ right rectified by the Occupational Health Care Act enacted in 1979.

⁸⁹ It includes a total of six departments: the Administrative Department, the Insurance Department, the Department for Family and Affairs, the Health Department, the Finance and Planning Department and the Department of Occupational Health & Safety. Vuorenkoski L., 2008, *Health System in Transition – Finland: Health System Review*, The European Observatory on Health Systems and Policies, UK, p. 31.

health centers. Both hospital districts and health centers rely on federations of municipalities, but they also differ from each other. For every level of care, there is a different authority in charge to plan, organize and monitor the relative activities.

Figure 2.2: Organization chart of the statutory health system



Source: Finland: Health System Review, 2008

2.3 Financing of Finnish health care system

Beyond the organization, health care systems need to be financed (Figure 2.3). Citizens have to contribute to finance the municipality health care system through taxation, which represents the largest portion of the system's total financing. The state contributes with subsidies around one quarter and the remaining part is paid directly by patients with additional fees.

Instead of municipal insurance, citizens can use the services of the

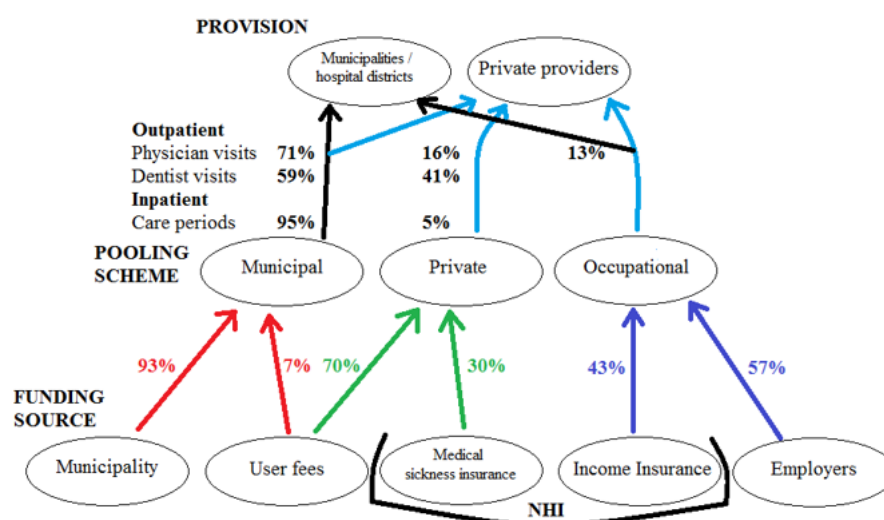
private health care system. unlike the public one there is not a compulsory payment in case a person does not use its services. The private health care system is predominantly financed by direct payments and around one third is subsidized by National Health Insurance through the Medical Sickness Insurance. The rest is funded in equal part by the insured⁹⁰ and the State.

A person's income level is a determinant factor in choosing public or private health care. The NHI provides a partial reimbursements of medical costs, but the large part of expenses is paid directly by the patients. People who perceive higher wages are more willing to opt for private providers, cutting waiting time to receive the treatments needed, while poorer people must settle of the municipal health care that, despite the longer wait, offers high quality medical care services.

As we have seen previously, most of the workers benefit from occupational health care because it is compulsory for providers to provide it. Employers pay for more than the half of the total expenses of occupational insurance, while the rest is provided by the National Health Insurance through Income Insurance. Insurers contribute to finance the Income Insurance through the taxation of their salaries, which rate is determined by their wage.

⁹⁰ Via fees collected through taxation. Teperi J., Porter M. E., Vuorenkoski L., Baron J. F., 2009, *The Finnish Health Care System: A Value-Based Perspective*, Sitra Reports, Helsinki, p. 42.

Figure 2.3: Parallel funding and provision in Finnish Health Care



Source: The Finnish Health Care System: A Value-Based Perspective

2.4 Quality of the public health care system

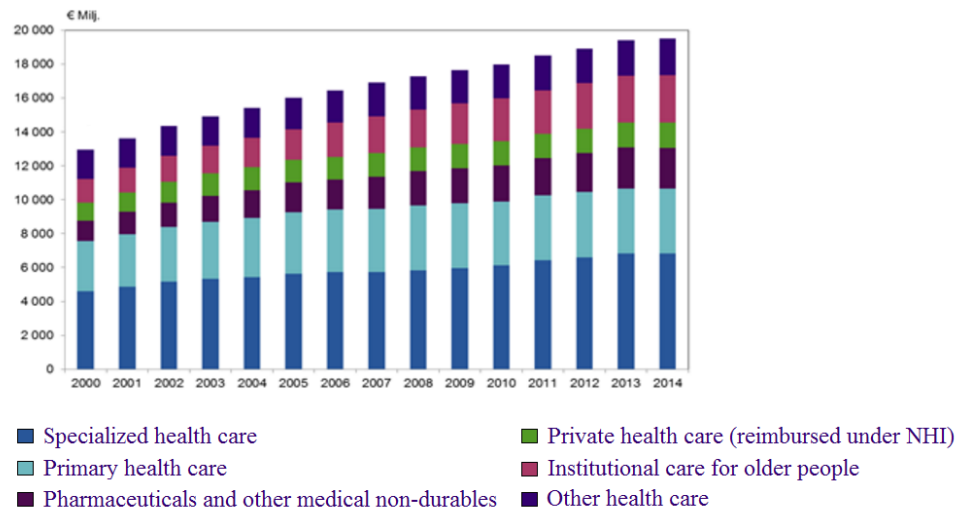
Municipals taken together register an increase in expenditure in the health sector every year,⁹¹ growing from 9.988 million euros in 2013 to 10.136 million euros in 2014 and a further increase in 2015⁹² with a total health expenditure of around 19.500 million euros⁹³ (Figure 2.4). Observing the two municipal sectors individually, specialized care had an increase of net expenses, from 6.174 million in 2013 to 6.632 million euros in 2015, and the primary care net expenses decreased, from 3.665 million in 2013 to 3.391 million euros in 2015.

⁹¹ Data gathered from the National Institute for Health and Welfare.
<https://www.sotkanet.fi/sotkanet/en/haku?g=600>

⁹² Official data still not available on the health sector despite available primary and specialized care data separately for the same year.

⁹³ Taking into account all the health expenditure <https://www.thl.fi/en/web/thlfi-en/statistics/statistics-by-topic/finances-in-the-health-and-social-services-sector/health-expenditure-and-financing>

Figure 2.4: Health expenditure in Finland



Source: Health expenditure and financing 2014, THL

This can be explained by the growing number of referrals to medical specialists.⁹⁴ Finnish public health care is one of the best in Europe in terms of quality of care received, but in some services that involve non-urgent treatments, long waiting times remains an issue (Figure 2.5). Emergency cases are treated with the maximum attention. A patient admitted to the hospital in Finland because of a stroke or heart attack has one of the lowest mortality rates compared with other OECD countries: only 6,5% and 8,5% died from stroke and heart attack, respectively, within thirty days of being hospitalized. Cancer has low mortality rate as well, being at least 10% lower than the average in European countries.⁹⁵

A great improvement in quality of care has been registered since 2011.⁹⁶ The number of avoidable hospital admissions is a good indicator of the performance of primary care. There was a low number of hospital

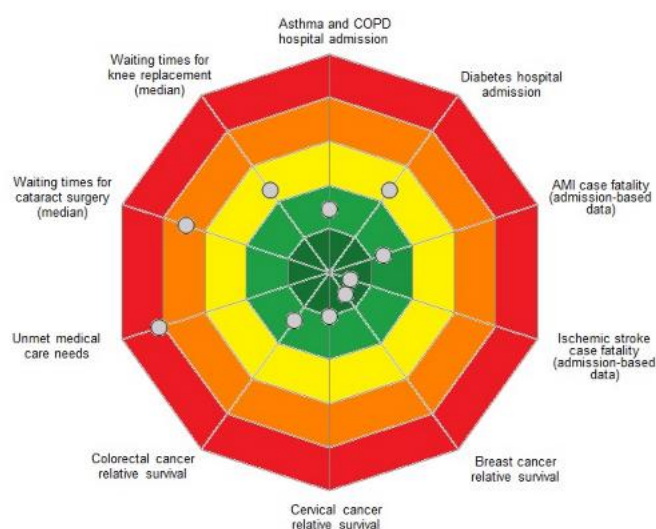
⁹⁴ Few exceptions are represented by Pirkanmaan shp, Etelä- Pohjanmaan shp, Kainuun shp and Lapin shp, which registered a decrease in the number of total referrals between 2015 and 2016. Häkkinen P., Vuorio S., *Hoitoonpääsy erikoissairanhoidoidossa - Tilanne 31.12.2016*, THL.

⁹⁵ *Health at a Glance 2016*, p. 64.

⁹⁶ Data gathered from the official OECD's textbook *Health at a Glance 2016*, p. 63.

admission for asthma and chronic obstructive pulmonary disease, with a rate of 193 persons per 100.000 in 2013. Diabetes hospital admissions are lower recently as well, reaching a rate of 126 persons per 100.000, an improvement that brought Finland below the average for OECD countries (192 persons every 100.000). Progress in shortening waiting times has been registered too, but Finland still has longer times for more common diseases compared to other Nordic countries. During 2016, treatments for knee replacements required at least 90 days of waiting in 22% of the cases, and cataract surgeries had the longest queue with a representation by 33,6% of patients who waited over 90 days and 4,9% waiting more than 180 days. Unmet needs in medical care remain a big issue too, with around 4% of Finnish people reporting receiving health care an impossibility due to financial reasons, travelling distance, or waiting times. Differences are remarkable across municipalities, where there is a significant variation in resource allocation. The size of the municipality is an important factor. Smaller municipalities can have difficulties in getting enough financial and human resources to guarantee an high efficiency.

Figure 2.5: Representation of the quality of health care in Finland reported in 2015

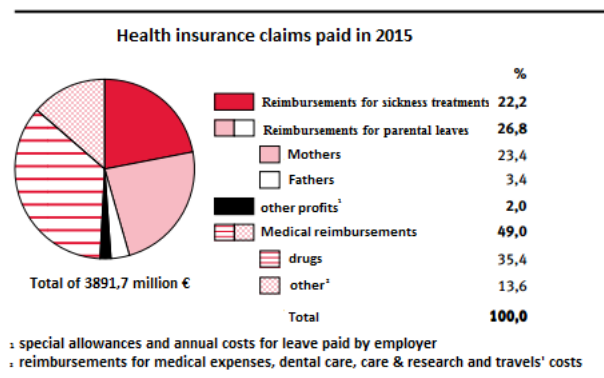


Source: OECD Health at a Glance 2015 (chart design: Laboratorio MeS)

2.5 Reimbursements from the National Health Insurance

Instead of municipal health care, people can choose to obtain medical services from private providers by paying higher out-of-pocket expenses and receiving the same quality of services but in shorter times. In addition, the National Health Insurance provides a partial reimbursement of the medical costs incurred. In 2015 Kela paid a total of 3891,7 million euros in private and occupational care reimbursements (Figure 2.6). Most of the reimbursements (49%) were related to medical expenses. Drugs in particular had the biggest slice (35,4%) while other medical services, like dental care, had a smaller slice (13,6%). Maternity represented a remarkable proportion of the parental leave reimbursements. Finland is known as one of the best countries in the world for maternity, paternity and child benefits.⁹⁷

Figure 2.6: Health insurance claims paid in 2015



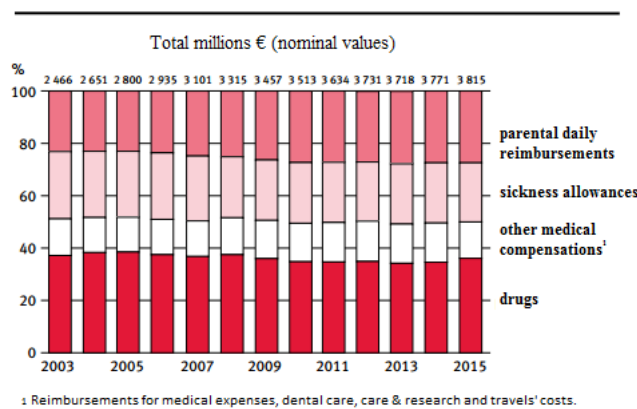
Source: Kelan sairausvakuutustilasto 2015, FPA-statistik, Kela

Since 2003, Finland has increased reimbursements for medical

⁹⁷ Other than partial reimbursements, mothers who are pregnant are provided with maternity packages that contain cloths, care products, and other materials delivered in a box. This box is updated every year based on the feedback given by the patients of the previous year. This tradition started in the 1930s with the aim to give an equal start in life to all children.

expenses to 1350 million euros (Figure 2.7). More reimbursements were given in form of maternity allowance; this is a great contribution from a country that wants to encourage the birthrate to increase, underlying a necessity of persons who will take part of the local labor force in the next decades. Portions of sickness treatments' reimbursements and other medical compensations stayed constant in 2015, while reimbursements for purchasing drugs increased by 5,5% since the previous year. Almost half of reimbursements for drugs bought came from medicines entitled for a complete refund. These drugs require a prescription made by the doctor, generally released after a medical examination. Only 22,5% were represented by basic drugs, which do not require any prescription beforehand.

Figure 2.7: Reimbursements done by Kela during the period 2003-2015



Source: Kelan sairausvakuutustilasto 2015, FPA-statistik, Kela

Types of sickness that involve reimbursements paid by Kela differ with the age of the patients (Figure 2.8). In 2015, a greater amount of reimbursements related to treatments of mental and behavioral disorders were given to the group between 16- and 34-years-old. According to

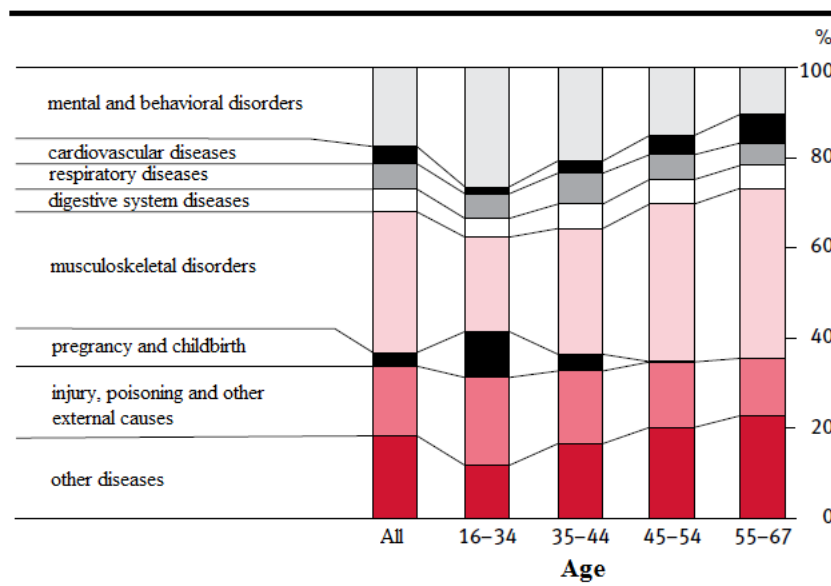
national statistics,⁹⁸ even if the number of suicides continues to decrease every year, one third of the people who commits a suicide is under 25-years-old. Reimbursements for treatments of cardiovascular diseases were given more for children and the elderly, when chronic diseases are more likely to happen. An equal portion of reimbursements for treatments to every group is represented by respiratory diseases with a slight part added for the middle-aged group, who suffer from the consequences of years of smoking, having a higher incidence of neoplasms.⁹⁹ Reimbursements for treatments to musculoskeletal disorders were prevalent for elderly people and children, ages where muscles and bones are weaker. Compensations for medical costs incurred from injury, poisoning, and other external causes are made in large part for the group between 16- and 34-years-old, mostly when persons are victim of unintentional injuries happened at home or at leisure.¹⁰⁰

⁹⁸ http://www.stat.fi/til/ksyyt/2015/ksyyt_2015_2016-12-30_kat_006_en.html

⁹⁹ http://www.stat.fi/til/ksyyt/2013/ksyyt_2013_2014-12-30_kat_001_en.html

¹⁰⁰ https://www.thl.fi/documents/568266/1481840/STM_2014_1_tapaturma_eng_appndx2.pdf/597f1137-b862-409d-8b23-93e390b37264

Figure 2.8: Reimbursements for sickness treatments given by Kela in 2015 by type and per age of the patient (expressed in percentage)



Source: Kelan sairausvakuutustilasto 2015, FPA-statistik, Kela

2.6 Role of the Voluntary Health Insurance in Finland

Voluntary health insurance is not common in Finland. Only around 5% of the whole population has bought one, and people above the age of 85 cannot apply for it. Most of those policies are made to cover children who cannot enjoy alternative services offered by occupational care, which is reserved to employed people. Private insurances design their policies based on free schemes due to the limited regulation they incur. They offer reimbursements for treatments, disabilities, loss of income, or death. Individuals buy this insurance mainly to limit their out-of-pocket expenses for private care, where they often have shorter waiting times than the municipality system, and to refund the portion of costs not covered by Kela in private care. Policyholders have a direct access to a specialist, the

opportunity to choose their physician, and a general better perception of the quality of care received. Looking at the statistics in Table 2.5, private insurance agencies have received more premiums for health and accident policies during recent years, from a total premium amount of around 360 million euros in 2011 to 528 million in 2015, an average of 10% of increase in premiums collected per year. Furthermore, the amount of medical expenses policies has grown more than 40% in the last five years.¹⁰¹

Table 2.5: Main private insurance companies by written premiums in health policies in 2012-2015 and premiums collected by the whole sector, €million

Company	2012	2013	2014	2015
Pohjola Insurance Ltd	99	120	139	156
If P&C Insurance Company Ltd	100	114	123	127
LocalTapiola	68	102	90	108
Eurooppalainen Insurance Ltd	37	41	41	41
Companies total	391	444	487	528
Change from the previous year, %	+ 8,6	+ 13,5	+ 9,8	+ 8,5

Source: Financial overview of Finnish insurance companies, FFI – FK

Due to the recent changes, private insurance companies in Finland can assure with health policies people up to 85 years old, giving a coverage that extends for the rest of their life¹⁰².

¹⁰¹ Federation of Finnish Financial Services, *Finnish Insurance in 2015 – Financial overview of Finnish insurance companies*, 2016, p. 8.

¹⁰² Private insurance companies can assure health coverage for people up to 100 years old.

Chapter III: HEALTH INSURANCE MARKET: ITALY

The same analysis will be made now for the Italian country. We will see that there will be difference especially in the organization and funding of the Italian Health Care System but common findings will be discovered as well.

3.1 A sociodemographic analysis of Italy

Italy has about 60,5 million inhabitants with a density of population that equals to 201 persons per square kilometer, although there is not the same distribution in the whole country: the regions of Campania and Lombardy are the more densely populated with 428 and 419 persons per square kilometer,¹⁰³ while Sardinia is the least densely populated region in Italy with just 69 persons per square kilometer. There are many inequalities between northern and southern regions involving cultural and financial differences, most of them stemming from the first inward migrations during the 1950s and 1960s, which involved a large flux of people moving for work reasons to the industrial triangle formed by Milan, Turin and Genoa.¹⁰⁴ Taking a look at the age structure in Table 3.1, the largest group is represented by people between 25- and 49- years-old that comprise 34,5% of the total population. The birth rate is slowly decreasing: children ages 0 to 14 represent 13,8% of the total, while in 2010 they were the 14,1%. The average age of Italians is gradually shifting higher; since 2010,

¹⁰³ Statistics gathered at http://dati.istat.it/Index.aspx?DataSetCode=DCIS_POPRES1 (last access on 18.03.2017)

¹⁰⁴Ascoli U., *Movimenti migratori in Italia*, Bologna, Il Mulino, 1979, pp. 52-53, 117.

1,1% more people are between 50 and 64, and 0,5% more are between 65 and 79. Even the elderly people (older than 79) represent a bigger proportion than 2010, with an increase of 0,7%. The older population is mainly formed by the baby boomers born between the 1963 and 1965, with a peak of around 1.000.000 new births happened in 1965.

Table 3.1: Portion of population by age group, 2010-2015

<i>Year</i>	<i>Age group</i>						<i>Total</i>
	0-14	15-24	25-49	50-64	65-79	80+	
	%						
2010	14,1	10,0	36,3	19,1	14,7	5,8	100
2011	14,1	10,0	36,0	19,5	14,5	6,0	100
2012	14,0	10,0	35,7	19,5	14,7	6,2	100
2013	14,0	9,9	35,3	19,7	14,9	6,3	100
2014	13,9	9,8	35,0	19,9	15,0	6,4	100
2015	13,8	9,8	34,5	20,2	15,2	6,5	100

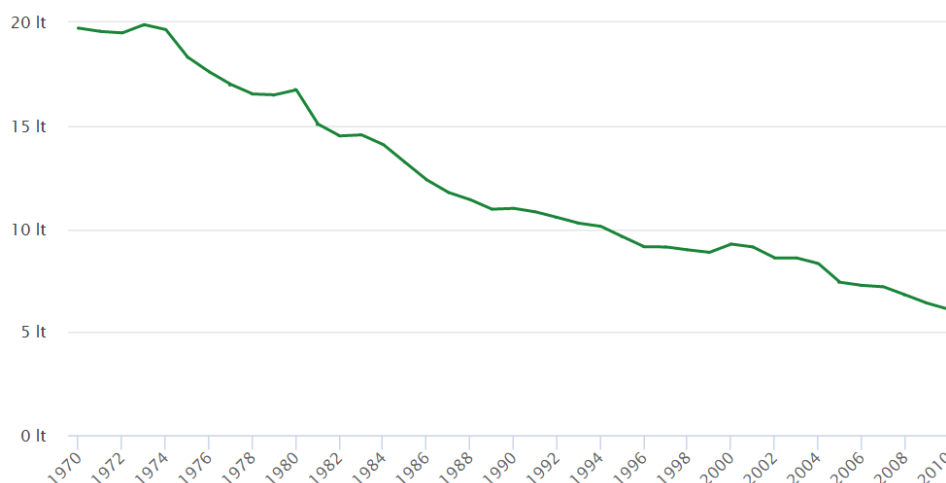
Source: Eurostat

Foreign residents keep the national population younger. They represent 5 million people in the country, 80% of them are less than 45, and 93% are less than 55 years old.¹⁰⁵ In a worldwide ranking of alcohol consumption, Italy is at the end of the list with an average of 6,1 liters per capita consumed by people with at least 15 years old (Figure 3.1), with a decrease of daily drinkers from 31% of 2005 to 22,1% in 2014.¹⁰⁶ There has been an increase in occasional drinking (from 38,6% to 41%) and people who drink alcohol drinks without food (from 25,7% to 26,9%).

¹⁰⁵ www.istat.it (last access on 18.03.2017)

¹⁰⁶ https://www.istat.it/it/files/2015/04/statistica_report_alcol_2014.pdf?title=Uso+e+abuso+di+alcol+-+16%2Fapr%2F2015+-+Testo+integrale.pdf (last access on 19.03.2017)

Figure 3.1: Consumption of alcoholic beverages, per capita 1970-2010



Source: Sisma: Sistema di monitoraggio alcol correlato

The portion of smokers is decreasing as well, from 23,7% in 2001 to 19,6% in 2015.¹⁰⁷ 33% of men between 25 and 34 smoke cigarettes (33%), and 20,8% of women between 55 and 59 smoke. There is a high correlation between smokers and drinkers: around 29% of smokers also drink alcohol excessively, while only 16% of non-smokers drink excessively.

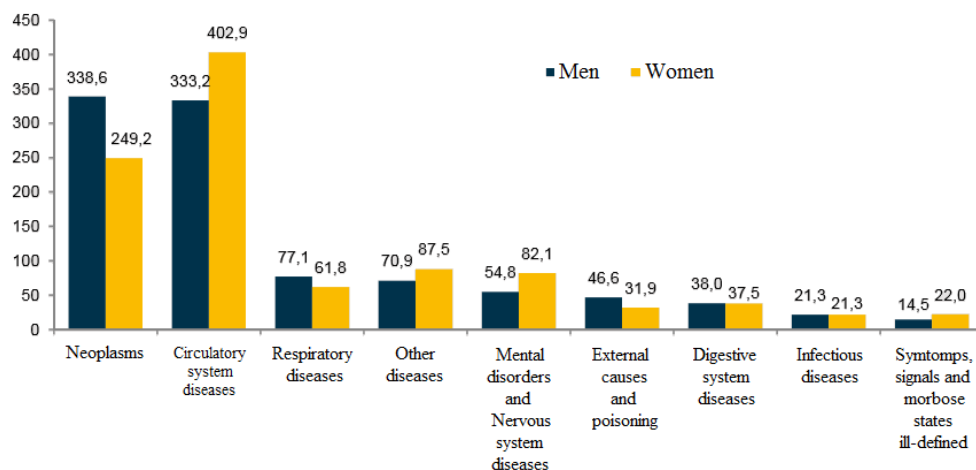
Most people in Italy have a normal weight (51,8%), while 45,1% of the population is overweight. Of the overweight population, 9,8% are obese, with a share of 10,8% of men and 9% of women.

The main cause of death in Italy (Figure 3.2) is represented by circulatory system diseases, in particular correlated to elderly specific ailments such as strokes, heartbreaks, and ischemia, though these diseases can also affect young people. The second main cause of death is due to neoplasms. Women can encounter breast cancer at a young age, and men can die from bronchial adenoma, tracheal, or lung cancer. In the third

¹⁰⁷ https://www.istat.it/it/files/2016/07/Fattori-di-rischio_salute_def.pdf?title=Fattori+di+rischio+per+la+salute+++26%2Fflug%2F2016+-+Testo+integrale.pdf

position for women there is morbidity,¹⁰⁸ while men are more affected by respiratory diseases like chronic obstructive pulmonary disease and asthma. Also ranking at third are deaths caused by mental disorders and nervous system diseases. Just below are external causes of death, such as violent death and poisoning. At the end of the ranking are diseases that affect the digestive system and infections such as hepatitis, HIV/AIDS, and ill-defined morbid status.

Figure 3.2: Causes of death per groups and pathologies, report for 100.000 habitants, 2013



Source: Istat, investigation on causes of death

Italy follows the same pattern for the future demographic composition (Table 3.2): new births will decrease by 1% between 2020 and 2060, resulting in 12,6% of the population being 15 years old or younger. Middle-age adults are decreasing too, losing the 9,1% since 2020. Perhaps the most worrying finding is the increase of the elderly population: by 2060, people between 65 and 79 years old will reach 17,6% of the total

¹⁰⁸ This includes blood disorders, endocrinal disorders, skin disorders, musculoskeletal diseases, childbirth and postpartum morbid conditions of the perinatal period and congenital malformations. Most of the deaths associated to this group are related to diabetes mellitus and renal failure.

population, increasing by 2,4% by 2020, while elders over 80 years old will become 15,5% in 2060 with an increase of 8,2% in 40 years. These extrapolations mean that the elderly population will be more than double today's.

Table 3.2: proportion of population by age group in Italy, 2020-2060

<i>Year</i>	<i>Age group</i>						<i>Total</i>
	0-14	15-24	25-49	50-64	65-79	80+	
%							
2020	13,6	9,7	32,5	21,8	15,2	7,3	100
2025	13	9,8	30,2	23,0	16,2	7,7	100
2030	12,6	9,7	28,9	22,7	17,5	8,6	100
2035	12,4	9,4	28,4	21,0	19,4	9,3	100
2040	12,6	9,0	28,1	19,3	20,8	10,3	100
2050	12,6	8,9	27,6	18,3	19,5	13,6	100
2060	12,6	9,2	27,1	18,1	17,6	15,5	100

Source: previsioni demografiche anni 2011-2065, Istat

3.2 Organization of the Italian health care system

In the Italian health care system, the organization and funding are based on a vertical structure. The central core is represented by the regions that have the fundamental role of deciding how to use the resources entrusted to them.

The system is organized into three levels (Figure 3.3): a national level where fundamental principles and goals are set; a regional level where regions organize the delivery of health care; and a local level where local authorities directly offer health care through either public or private providers.

At the national level, the government's Ministry of Health, divided into three departments,¹⁰⁹ has the lead in planning health care, defining the

¹⁰⁹ These departments are represented by the Department of Public Health and Innovation for prevention, research and communication; the Department of Planning and Organization of the SSN for health-care planning, statistics, to manage professions, resources and medical services; the Department of Veterinary

essential level of assistance (LEA), setting long-term goals, financing the regional health systems with available funds, controlling the National Health Care System, and governing the IRCCS.¹¹⁰

At the regional level, the 19 regions and two autonomous provinces share the responsibilities of planning and financing with the central government. Because of the decentralization of the management of the resources and executions of the services, each region is exclusively responsible for the delivery of public health care services through its regional health care system.

Following the general principles and rules in their activities¹¹¹ and with the Department of Health, each region has to draft the Regional Health Plan, define the requirements for both public and private health providers and monitoring on them to assure the quality of their care. Moreover, they have to coordinate the health and social care and managing the local authorities giving them the resources, electing their directors and defining their boundaries. More than the half of the regions¹¹² have a regional agency to both support the executive functions of the regional health department and provide technical support to the local authorities.

At a local level, ASLs¹¹³ are responsible for organizing the allocated resources and delivering health services to their local population. The health services depend directly on their government and receive funds

Care, Food Safety and Collegial Organs for Health Protection. Ferré F., De Belvis A. G., Valerio L., Longhi S., Lazzari A., Fattore G., Ricciardi W., Maresso A., 2014, *Health Systems in Transition – Italy: Health system review*, European Observatory on Health Systems and Policies, Milan, p. 20.

¹¹⁰ It stands for National Institutes for Scientific Research. The Ministry monitors these institutes to guarantee a research aimed to the public interest.

¹¹¹ Which currently includes the observation of general principles, defining rules in the role of regional authorities, public and private providers; organization of the regional health care system; rules in financing public and private health providers; guidelines for provision of services and planning. Ferré F., De Belvis A. G., Valerio L., Longhi S., Lazzari A., Fattore G., Ricciardi W., Maresso A., 2014, op. cit., Milan, p. 22.

¹¹² Actually 11 regions, mostly in northern Italy.

¹¹³ It stands for Aziende Sanitarie Locali, which are the local health authorities.

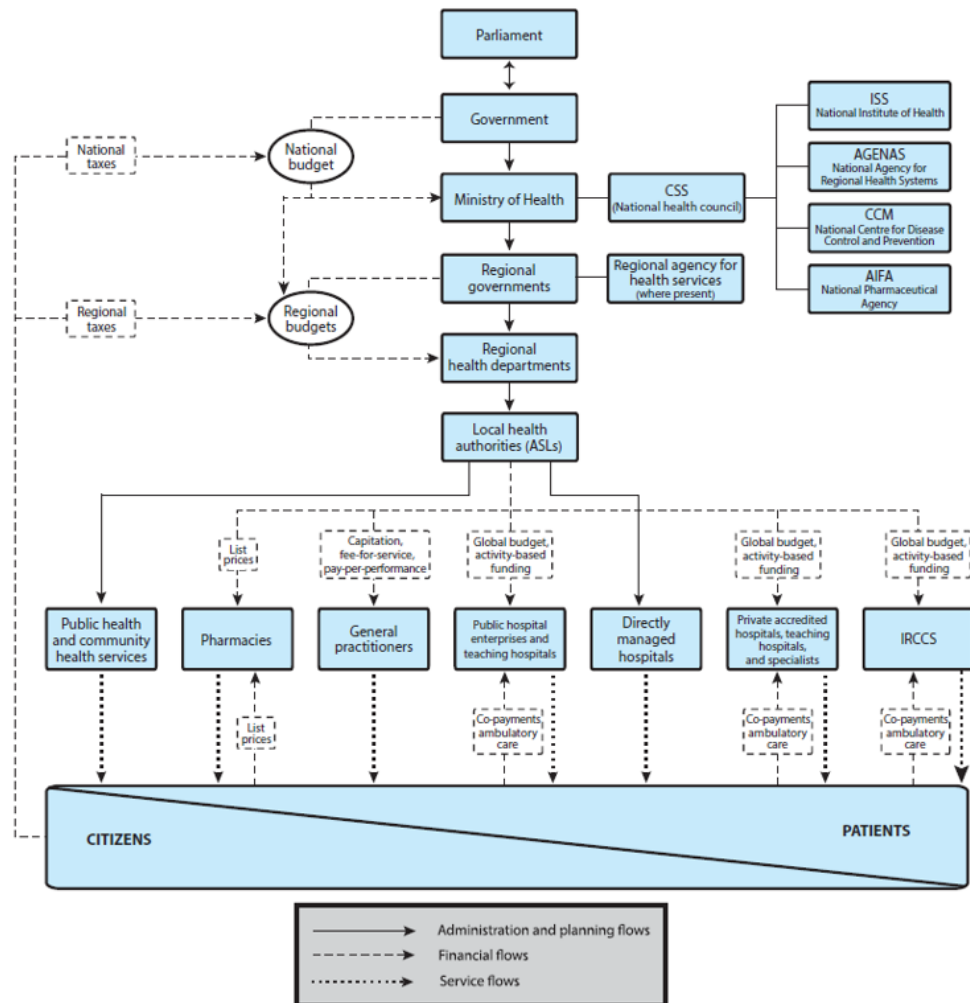
based on proper schemes that could differ a lot between regions. ASLs¹¹⁴ are divided into districts that provide health care services to a defined amount of inhabitants. Health services can be preventive, primary, and secondary care, guaranteeing a minimum level of assistance (LEA). These services are supplied freely or eventually with an additional amount required by ticket.¹¹⁵ LEA are organized in three big areas: community care, which comprehend activities of prevention¹¹⁶; local care that includes mainly primary care and pharmaceutical services, specialized and diagnostic services, home-delivered health care, mental health and houses for elderly; and hospital care with inpatient and outpatient, emergency and rehabilitation. In addition to these LEA, regions can choose to offer more services based on the amount of resources available.

¹¹⁴ Currently there are more than 200 local health authorities in the national territory.

¹¹⁵ It is a small out-of-pocket payment paid by the patients. Usually there are exemptions if the patient has a low income, he is elderly, he has a bad social condition, he has some chronic disease, he has disabilities, or other particular cases. Rebba V., 2009, *I ticket sanitari: strumenti di controllo della domanda o artefici di diseguaglianze nell'accesso alle cure?*, Politiche Sanitarie, p. 231.

¹¹⁶ They include preventive medicine for infectious diseases, vaccinations, diagnosis, plans of health protection.

Figure 3.3: Organization and financing of the SSN



Source: Italy: Health System Review, 2014

3.3 Financing of the Italian health care system

The main funds of the Italian health care system (Figure 3.4) come from national and regional taxes, eventually supplemented with co-payments for outpatient care and pharmaceuticals. The greater amount of these public sources make around 75,5% of the health care spending, and around 24,5% arrives from out-of-pocket payments. Only 1% of the expenses are funded by private health insurance. The national level pools most of the funding and redistributes it to the regions with highly varying tax rates. With the reforms of 1992,¹¹⁷ patients can choose to use public or private providers to receive their health care. All salaried doctors of the public system can practice privately to earn additional income from out-of-pocket expenses paid by patients. The rates for hospital and outpatient payments are set by each region. Hospital care is financed through payments based on Diagnosis-related group tariffs, usually complemented by other kinds of payment, while the outpatient care is funded by each unit of service provided.

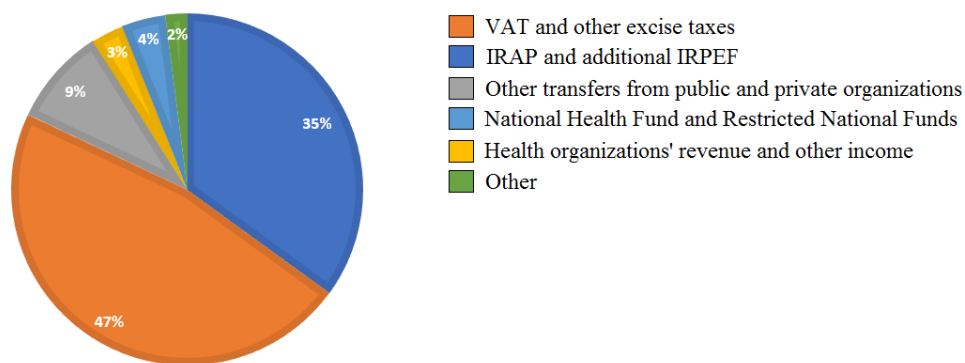
As said previously, the main source of the health care system funds is taxes, though there are various taxes that contribute to the system, such as a corporate tax (IRAP) on product activities and on the salaries earned by employees, collected at national level but progressively redistributed to the regions. Regions can raise the level of the tax rate by 0,92% from the base level set at 3,9%, depending on the industry. Incomes are taxed as well, with a tax rate base of 1,23%. Regions can charge an additional 0,50%. Those taxes together represent 35% of the total financing.¹¹⁸ The

¹¹⁷ Legislative decree n. 502 of the 30 December 1992.

¹¹⁸ Regions that face deficits can further increase those taxes since they are responsible to cover any deficit incurred with their own regions. Additional rates of 0,15% on IRAP and 0,30% on IRPEF can be

main part of the public revenues arrives from a fixed percentage of the national value-added tax (VAT), which is obtained by the state and used in the national fund. It is mainly used to guarantee the essential level of assistance in regions that have insufficient resources. The state uses around 38,5% of the VAT to finance the health care system.

Figure 3.4: Sources of financing from the compulsory contributory health scheme
(representing 75,5% of health care spending)

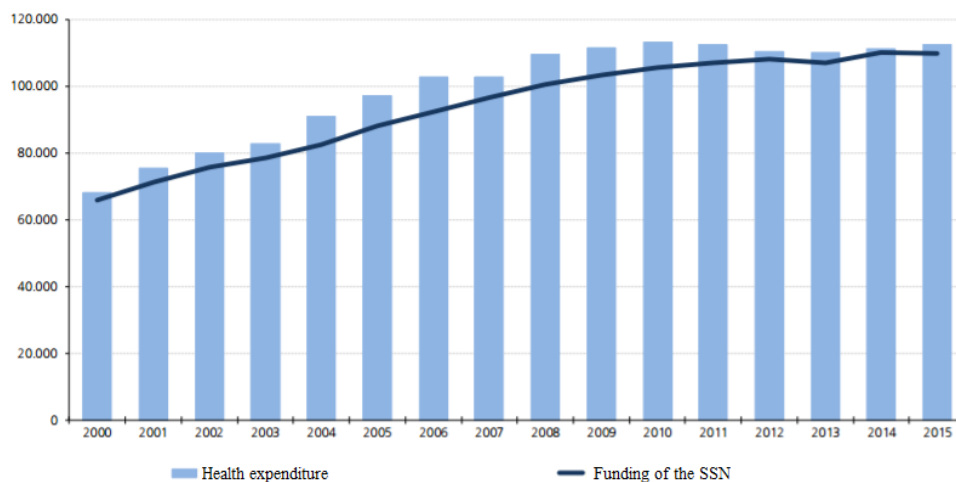


Source: Ministero della Salute, Armani & Ferré, 2013

3.4 Quality of the public health care system

The quality of public health care in Italy is affected by cuts on health spending, which is exceeding the amount provided by the National Health Fund (Figure 3.5) causing an accumulation of deficit. The health expenditure grew from 109.260 million euros in 2013 to 110.675 million euros in 2014, reaching 112.408 million euros in 2015 with an increase by 1%.¹¹⁹ 2013 was a critical year: for the first time, a reduction on all resources provided by the State was recorded, resulting in an increase of out-of-pocket expenses paid by the citizens.

Figure 3.5: Health expenditure and funding of health care system (values in million euros)



Source: Il monitoraggio della spesa sanitaria 2016 – rapporto n.3, Ministero dell'Economia e delle Finanze

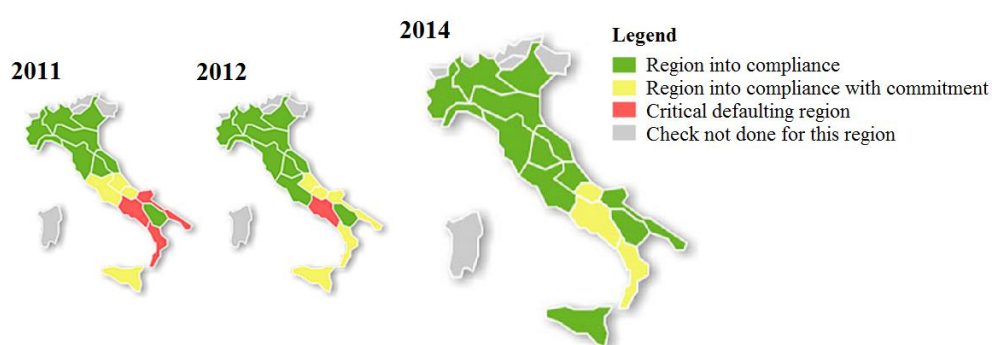
Another issue is the corruption in healthcare and medicine. Corruption and waste in health spending costs around 5,6 billion euros

¹¹⁹ Ministero dell'Economia e delle Finanze, *Il monitoraggio della spesa sanitaria – rapporto n. 1,2,3*, Rome.

every year, equal to 5% of the total health expenditure.¹²⁰ Corruption is more prevalent in the southern regions (41%) than in the central regions (30%) or northern regions (23%). 6% of criminal acts are done in other places.¹²¹

The Italian healthcare is known as one of the best in quality, but a lack in strategic view and governance of the human resource programming in recent years contributed to bringing the healthcare system to an unsustainable level. This is a co-factor that led to a failure in respecting the provision of the essential level of assistance (LEA) in some regions in 2011 and 2012 (Figure 3.6), while in 2014 there was a general improvement made by plans of sustainability, reaching 13 regions that fulfilled the provision and only three in the south that still have to improve some sectors, such as vaccinations, care for the elderly and disabled, screening, and quality of hospital care.¹²²

Figure 3.6: Compliance of Essential Levels of Assistance (LEA) in Italy



Source: Verifica adempimenti LEA, Ministero della Salute

¹²⁰ Istituto per la promozione dell'etica in sanità, <http://www.ispe-sanita.it> (last access on 20.03.2017)

¹²¹ Other than criminality, Italy has a bigger VAT gap than other European countries that is estimated to 32% more than the VAT recorded. Barbone L., Bonch-Osmolovskiy M., Poniatowski G., 2015, *Study to quantify and analyze the VAT Gap in the EU Member States*, Warsaw, p.17.

¹²² Ministero della Salute, 2016, *Verifica adempimenti LEA 2014*, available at http://www.salute.gov.it/imgs/C_17_pubblicazioni_2581_allegato.pdf (last access on 21.03.2017)

Despite these results, according to the *XIX Rapporto PiT Salute*,¹²³ patients in 2015 still reported many problems encountered in accessing to the healthcare system (Figure 3.7). Access to services represented the main problem faced by patients, with an increase of 5,5% since 2014. Problems associated with access to services include waiting times, ticket costs and exemptions. In the list of services, elective surgeries had the most reports of long waiting times, followed by specialized visits and diagnostic exams.

For elective surgeries (Table 3.3) the longest waiting times are represented by implant removal and hallux valgus, both with lengths of 24 months, followed by maxillofacial surgery with 20 months and breast reconstruction with 18 months. Surgeries that require less waiting times but that are no less serious are femoral fracture with 7 months, cataract with 10 months, and tibia fracture with 11 months.

Table 3.3: Maximum waiting times for elective surgeries reported in 2015

Implant removal	24 months
Hallux valgus	24 months
Maxillofacial surgery	20 months
Breast reconstruction	18 months
Tonsillectomy	14 months
Inguinal hernia	12 months
Tibia fracture	11 months
Cataract	10 months
Femoral fracture	7 months

Source: Cittadinanzattiva 2016

¹²³ Fava V., Zuccarello S., Nicoletti T., Bressi M.T., Squillace A., 2016, *XIX Rapporto PiT Salute – Servizio Sanitario Nazionale: Accesso di lusso*, Rome, Cittadinanzattiva Onlus.

Moreover, many patients reported an increased maximum waiting times on neurological visits, which grew from 5 months in 2014 to 12 months in 2015, dentistry visits from 7 to 9 months and oncologic visits from 6 to 9 months. Regarding diagnostic exams, few maximum waiting times increased in 2015 as much as mammography, which lengthened from 12 to 15 months; Doppler ultrasound test, 10 to 11 months; and radiography, 7 to 9 months. Other exams decreased in waiting times. The Magnetic Resonance Imaging waiting time went from 13 to 12 months, CT scans from 12 to 10 months, colonoscopy from 8 to 7 months, and electrocardiogram from 7 to 5 months.

Table 3.4: Difference in maximum waiting times for diagnostic exams reported between 2014 and 2015

	2014	2015
Mammography	12 months	15 months
MRI	13 months	12 months
Doppler ultrasound test	10 months	11 months
CT scan	12 months	10 months
Radiography	7 months	9 months
Ultrasound	9 months	9 months
Colonoscopy	8 months	7 months
Gastroscopy	5 months	6 months
Electrocardiogram	7 months	5 months

Source: Cittadinanzattiva 2016

There are several complaints patients have reported regarding the health care system. Tickets, especially those related to diagnostic visits and specialized care, were signaled as the most onerous out-of-pocket payments

made by citizens and they are becoming a serious barrier to the provision of care.

Presumed malpractice in healthcare is still the second cause of reports with a decrease of just 0,8%, composed in large part by assumptions in medication and diagnostic errors. Malpractice derives from “an event which, even if unintentional, occurred due to negligence, imprudence, inexperience or failure to comply with laws, regulations, orders and disciplines,”¹²⁴ in which the fault must be proven by a doctor, the causal link under the *condicio sine qua non* with a patient who gave his consent to receive a particular treatment.¹²⁵

Territorial assistance is third position (11,5%) and is where primary healthcare has the largest amount of reports due to a lack in the availability of services for the patients. Citizens have problems in reaching information related to the services they need, or the information they received was incomplete. This was more prominent in 2015 with an increase of 2,2% of reports since the previous year.

People who suffer from impairments or disabilities reported a relative slowness on the part of the bureaucracy that represents the main cause of inconvenience they faced. This situation slightly got better since 2014, but not enough so much to define it as an improvement.

Cuts in health expenditure caused issues in providing the necessary care to people, who are becoming increasingly elderly. This caused reports related to the availability of hospital care, having less beds for patients, and closing small hospitals. Patient are forced to move to other cities to find the care needed. Despite an improvement, this type of complaint remains as 10% of the reports submitted.

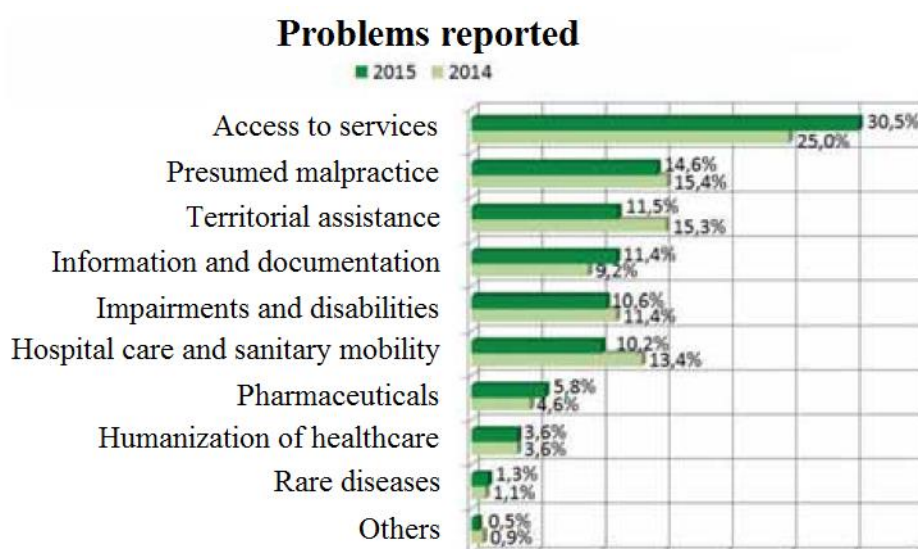
¹²⁴ Italian Penal Code, art. 43.

¹²⁵ DiMarzio C., 2012, *Medical Malpractice: The Italian Experience*, 87 Chi.-Kent. L. Rev. 53.

As said previously, out-of-pocket expenses can represent an onerous cost for the patients, especially when patients are following long treatment plans and there is a significant price difference between the prescribed drug and a generic drug that contains the same active principle. These reports increased by 1,2% since 2014, underlining the greater economic pressure that patients are experiencing.

The amount of reports regarding the humanization of healthcare remained almost the same as in 2014. Humanization is an aspect that should not be underestimated, since a big slice of the quality of the care received depends on the relation between physicians and their patients. Numerous cases of abuses or lack of empathy are still recorded today. The majority of patients who faced a rare diseases encountered problems in trying to receive an exemption for the treatments they needed because their diseases were not listed with those deserving a free service. Those reports slightly increased since 2014, and they merit more attention.

Figure 3.7: Report of the main problems faced by patients



Source: XIX Rapporto PiT Salute – Servizio Sanitario Nazionale: accesso di lusso,
Cittadinanzattiva 2016

3.5 Role of the Voluntary Health Insurance in Italy

In Italy, as in Finland, the spending for voluntary health insurance does not exceed 1% of the total health expenditure. The greater amount of policies are subscribed in the working field, paid by employers to give benefits to their employees or by individuals who are connected to professional groups. Such policies can have a complementary function, covering the costs of services in part or totally excluded by the statutory health insurance. They have also a supplementary function, ensuring a shorter waiting time to receive medical care and the opportunity to choose a provider freely.

Voluntary health insurances can be obtained through non-for-profit providers and for-profit ones, called private insurance companies.

In non-for-profit providers, we find Integrated Health Funds, which are new instruments introduced in the national collective agreements that allow employees to benefit from the health services thanks to the coverage guaranteed by the fund. These funds are an alternative to the National Healthcare System where the employees can benefit from health service like specialized visits, diagnostic services, recoveries and surgeries without attending the waiting times expected in the National Healthcare. These services are in charge of the fund and provide some deductibles, but in almost all cases they are lower than the relative payment done through a ticket. Nowadays, almost every sector of the labor market has an Integrated Health Fund, which can also provide integrative pensions once the employee is retired or other benefits for people in his family.

Private insurance companies are the for-profit providers of voluntary health insurances, which offer health coverage paying an equivalent

premium. The records from the Italian National Association of Insurance Companies (Table 3.5) registered a remarkable variation in the premiums collected in Italy for accident and health insurance between 2011 and 2015, which amounts to 11% more in four years, even with a slight decrease between 2012 and 2013.

Table 3.5: Accident and Health insurance premium collected during the period 2012-2015, values in million euros

	2012	2013	2014	2015	Var 11-15
Accident	2.976	2.946	3.380	3.393	+ 14,0%
Health	2.138	2.095	2.234	2.284	+ 6,8%
Total	5.114	5.041	5.614	5.677	+ 11,0%

Source: L'Assicurazione Italiana, Ania

This is evidence of growth in the awareness of people in the important role that a private health insurance policy provides in complementing and supplementing medical expenses when the out-of-pocket costs are higher than expected.

Chapter IV: FINLAND AND ITALY: A COMPARISON

After having seen how each country's health insurance system works, this chapter will compare them in terms of universality, expenditure and sustainability.

4.1 Comparison of the Health Insurance Systems

In this analysis we focus the discussion on coverage for the largest group of the population composed of people under 65 earning a wage or salary, which are the qualifications to be represented by the primary insurance system.

Finland and Italy provide universal health insurance coverage (Table 4.1). Finland spends 3.651€ per person, one third more than Italy. The gross domestic production allocated in healthcare spending is 9,6% in Finland and 9,1% in Italy, both under the average portion of European countries (9,9%). In 2015 public spending represented 75,5% of total funding in both countries with no separated special programs for selected population.¹²⁶

Table 4.1: Measures of health insurance breadth of coverage

Breadth dimensions	Finland	Italy
Population covered by primary insurance	100%	100%
Euros of health spending per capita	€3.651	€2.436
GDP spending on health care	9,6%	9,1%
Public health care expenditures	75,5%	75,5%
Spending on the primary health insurance	75,5%	75,5%
Specialized insurance for selected populations	No	No
Prevalence of secondary insurance	Uncommon	Uncommon
Data from year	2015	2015
Population in 2015	5,5	60,5

Source: OECD database

¹²⁶ Included in the primary health insurance are benefits for elders, the disabled, children, low-income people, high medical cost, and unemployed.

Secondary insurance is not common in either country, but this minority provides supplementary coverage for services not guaranteed by the primary health insurance and complementary coverage for some services that require out-of-pocket expenses. Private expenses had an opposite trend (Table 4.2) in the two countries during the last years: while in Finland the share decreased from 25,3% in 2010 to 24,5% in 2015, in Italy it had a gradual increase, passing from 21,5% in 2010 to 24,5% in 2015, reporting higher contributions from the citizens with direct expenses.

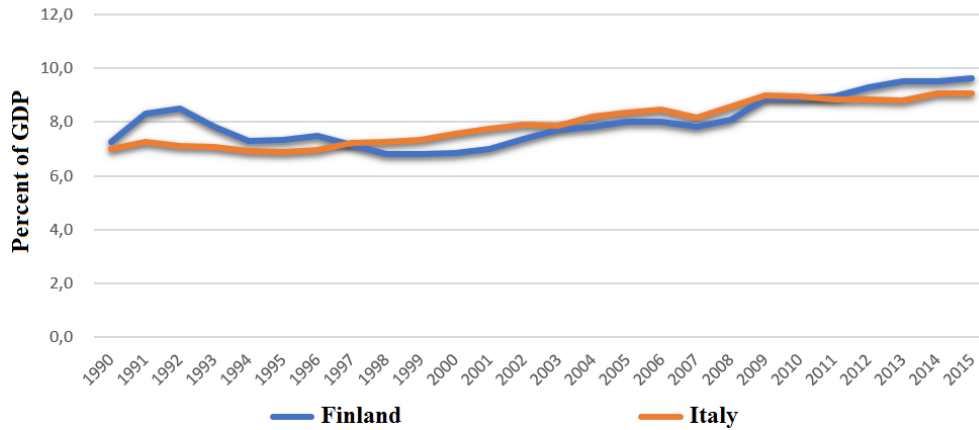
Table 4.2: Private expenses, share of current expenditure on health (2010–2015), values in %

	2010	2011	2012	2013	2014	2015
Finland	25,3	24,8	24,2	24,5	24,6	24,5
Italy	21,5	23,0	23,0	22,6	24,2	24,5

Source: OECD stats

The gross domestic product allocated in health care grew in both countries since 1990 (Figure 4.1), when levels were 7,2% in Finland and 7,0% in Italy. In 2000 these levels arrived at 6,9% in Finland and 7,6% in Italy, keeping a trend of growth until 2010 reaching, respectively, 8,9% and 9,0%. Then cuts on the resources given to the Italian healthcare slowed its growth, reaching the current 9,1%, while in Finland it continued growing to 9,5% in 2015.

Figure 4.1: Health Care Spending as a Percentage of GDP in Finland and Italy (1990–2015)



Source: OECD database

The main fund of these primary insurance systems is taxation. As we have seen previously, Finland has a decentralized healthcare system that is based on three pooling schemes: *municipal* with funds derived mainly by municipal taxes,¹²⁷ one quarter by state subsidies¹²⁸ and the minority by user fees; *private* mainly funded by out-of-pocket expenses and the rest by the National Health Insurance; and *occupational*, funded primarily by the National Health Insurance, together with contributions made by employers on the salary bases of their employees. These funds represent the 75,5% of the total expenditures, while the rest is paid directly by the citizens and 1% by private insurances.

In Italy the main source of healthcare is taxation as well, where a large part is represented by a fixed portion of VAT, followed by a proportional tax (IRAP) and a progressive one (addizionale IRPEF). Out-of-pocket payments represent the second main source with a share of 23,5%, while 1% is contributed by private insurances. In the public

¹²⁷ Which have a flat tax rate; inside the table they are called “proportional payroll taxes.”

¹²⁸ Main funding of state subsidies derives from progressive income taxes and general tax revenue.

expenditures group there are a minority of other transfers from public and private organizations as charitable donations.

Table 4.3: Revenue generation in Finland and Italy

Sources of health care spending	Finland	Italy
Proportional payroll taxes	√√	√
Progressive income taxes	√	√
General tax revenue	√	√√
National health insurance	√√	
Charitable donations		ε
Private insurances	ε	ε
Consumer out-of-pocket payments	√√	√√
Portions: ε= less than 10% , √= between 10% and 20% , √√= more than 20%		

Source: Health in Transition series, Finland & Italy

There are mainly four strategies that can be used to control healthcare costs (Table 4.4): *demand-side cost sharing*, where patients have to pay more through supplement payments as copayments, deductibles, coinsurance or a coverage ceiling, which sets a maximum threshold covered by the health plan; *supply-side cost sharing*, setting the prices to be paid to the suppliers, aiming at the reduction in utilization of the healthcare services; *non-price rationing*, limiting the resources available to provide healthcare; *information provision*, influencing both care provision and demand.

Finnish and Italian healthcare systems do not use demand-side cost sharing methods, which are typical forms used in countries where private health insurances are dominant and have a primary role to provide healthcare. Instead, Finland and Italy use supply-side cost sharing methods. The salary of physicians is determined using a mix of capitation and fee-for-services regulated by regional and national contracts. Both countries set a global budget to fund their hospital facilities. In Finland restrictions are made due to the system of funding that disadvantages small

municipalities¹²⁹ and creates socio-economic and health inequalities among the people in some areas, due to long waiting times for some services.¹³⁰ This waiting period also encourages the usage of private healthcare, which is paid by out-of-pocket expenses from consumers and partially reimbursed given by the National Health Insurance.

In Italy the restrictions made to limit costs involve cuts on the public health expenditure¹³¹, reducing the numbers of hospital beds from 4 to 3,7 in 2014, avoiding unnecessary hospital admissions and reducing the length of staying. Moreover, diagnostic analysis are done only in indispensable situations and some services that were free now require an additional contribution from the patients. In Finland municipalities can choose freely¹³² the quantity of services provided and the organization of healthcare, based on the resources collected through taxation.

Gatekeepers are highly used in both countries, he is chosen when the health insurance starts and he remains the main reference doctor in case of disease encountered; in fact, doctors are in charge of assisting a patient for his or her entire route.

In 2011, less than half of the regions in Italy provided real data and/or maximum waiting times on their websites.¹³³ Nowadays the situation is improved and every region provides waiting times, at least for their major hospitals. Citizens can know the performance of regional

¹²⁹ Almost two third of municipalities have less than 10.000 habitants.

¹³⁰ Waiting times are directly affecting the health of a patient, and after a certain time he can require a more serious treatment because of deteriorated conditions.

¹³¹ Due to the Law of Stability that affects the public health expenditure every year.

¹³² Schulenburg J., Blanke M., 2004, *Rationing of Medical Services in Europe: An empirical Study: A European Survey*, IOS Press, Amsterdam, p. 13.

¹³³ Ministero della Salute, 2011, *Quarto Rapporto Nazionale sull'utilizzo di internet quale strumento di comunicazione dei dati su tempi di attesa nei siti web delle Regioni e P.A. e delle strutture del Servizio Sanitario Nazionale*.

healthcare systems¹³⁴ and have access to a comparison between the main hospitals at national level with easily comprehensible charts.

In Finland, citizens have access to the performance of the main municipal hospitals by consulting the hospital websites. Hospitals offer information regarding performance through annual reports,¹³⁵ patient feedback,¹³⁶ or statistics.¹³⁷

Providing information on waiting times could benefit future shorter waiting in accessing to healthcare services by redistributing patient demand and promoting competition among hospitals and physicians.

¹³⁴ Nuti S., Vola F., 2016, *Il sistema di valutazione della performance dei sistemi sanitari regionali – Report 2015*, Laboratorio Management e Sanità, Pisa.

¹³⁵ HUS, 2016, *A Day in the Life – Annual report 2015*, Finland.
http://niinidigi.kopioniini.fi/hus_annual_report_2015/#/1/ (last access on 04.04.17)

¹³⁶ Tays Hospital, http://www.pshp.fi/fi-FI/Sairaanhoitopiiri/Potilashoidon_tunnusluvut (last access on 04.04.17)

¹³⁷ Tays Hospital, http://www.pshp.fi/fi-FI/Sairaanhoitopiiri/Toiminta_ja_talous/Tilastotietoa (last access on 04.04.17)

Table 4.4: Strategies used to contain healthcare costs in Finland and Italy

Cost containment in Finland and Italy		
	Finland	Italy
Demand-side Cost sharing		
Is it used to control costs?	No	No
Copayment for office visits	X	X
Deductibles	X	X
Coinsurance	X	X
Coverage ceilings	X	X
Stoploss	X	X
Tiered provider pricing	X	X
Supply-side Cost Sharing		
Is it used to control costs?	Yes	Yes
Prevalence of MD fee-for-service	√	√
Use of bundled hospital payment	X	X
Bundled payment for primary care	X	X
Salaried hospital physicians	√	√
Capitated provider groups	√	√
Monopsony pricing	X	X
Government sets fee levels	√	√
Global budgets	√	√
Pay for performance bonuses	X	X
Non-Price rationing		
Government regulation of:		
Hospital beds	X	√
Imaging equipment	X	√
Numbers of doctors	X	X
Health plan use of:		
Selective contracting	X	X
Utilization controls	√	√
Managed Care	X	X
Gatekeepers	√	√
Information		
Hospital quality measures	√	√
Physician quality measure	X	X
Health plan quality measures	√	√
Patient satisfaction surveys	√	X
Notes: √= used , X = not used or not applicable		

Source: Ellis R. P., Chen T., Luscombe C. E. *Comparison of Health Insurance Systems in Developed Countries*, 2014

Between these two health insurance systems, there is one feature that, if it could be transferred from one system to the other, could potentially improve the general quality of the medical services provided or decrease the out-of-pocket costs of the households.

Kela, the social insurance institution of Finland, provides partial reimbursements for all citizens who want to receive medical services in private clinics. This is not the case in Italy, where INPS¹³⁸ does not provide this coverage for people outside occupational care. Adding this Finnish feature to the Italian system could extend the right to receive a partial reimbursement to all the people who prefer direct use of private healthcare and do not want to long waits to receive the medical services they need. Short waiting times are very important when treating many illnesses, since a patient's condition may deteriorate quickly, making the intervention more difficult with less satisfactory results.

The weakness of the Finnish system is represented by the municipal healthcare, which is mainly funded by income taxation and administered at a municipal level. This causes inequalities in accessing medical services between people living in big and small municipalities, since the latter often have issues collecting enough resources to provide quality medical services. Implementing a regional administration and quality standards like Italy has could improve the general quality of the public healthcare in Finland, reducing disparities between people living in rural areas and those living in big cities.

¹³⁸ The Italian social security institute.

4.2 Sustainability and Welfare

Finland and Italy are different in terms of the sociodemographic composition of the population and the source of funding for their healthcare systems, but there are common issues regarding sustainability that affect both countries.

In the Table 4.5 we can see the possible variations in the ratio Health Expenditure and GDP between 2013 and 2060. This Table shows the possible range of variation until the year 2060 between a basic value (a scenario in which only demographic factors and those related to the dynamics of GDP operate) and a maximum value (a scenario in which additional factors as technological development, income, institutional framework operate). From these projections, in the next 40 years European countries should have an increase on the portion of GDP absorbed by healthcare. Non-demographic factors will be more relevant than demographic ones¹³⁹ (15% compared to 36% variance).

Table 4.5: Possible variations in the ratio Health Expenditure/GDP in various scenarios

SCENARIO	Europe-15		
	Year 2013	Year 2060	Var in % 2013-60
Demographic	7.1	8.2	15%
Health life expc.	7.1	8.6	20%
Constant health	7.1	7.4	4%
Income elasticity	7.1	8.4	18%
EU-28 cost convergent	7.1	8.4	17%
Labour intensity	7.1	8.6	20%
Non-demographic drivers	7.1	9.7	36%

Source: European Commission, EPC/2015 & Viola N., *Sostenibilità dei sistemi previdenziali e sanitari in Europa e in Italia*, 2015

¹³⁹ Viola N., 2015, *Sostenibilità dei sistemi previdenziali e sanitari in Europa e in Italia*, Prova Finale del Corso di Laurea in Economia e Management, Padova.

Both countries have territorial inequalities in receiving healthcare. Finland has this issue at the municipal level since every municipality is mainly responsible to fund and provide the needed resources for its citizen. Even with a subsidy from the state, small municipalities are the most disadvantaged when collecting enough resources and providing healthcare to everyone.

Italy has this issue of inequality at the regional level. The average quality of care in the country is fairly good, but as we saw in Figure 3.17, some regions still have problems providing the essential levels of assistance to their citizens. Even if in the last years there was a general improvement of this situation, nowadays there are still relevant differences on quality and cost of assistance received in northern and southern regions. Those essential levels of assistance need to be upgraded in order to follow the current needs of the patients. Italy has national data on funding in Figure 3.16, where we can see that the revenues collected during the past years were not enough to support the healthcare expenditure, highlighting the fundamental role of those regions in deficit to follow the repayment plan.

Other than territorial inequalities, there are also economic inequalities in accessing healthcare. Due to the waiting times, poor people often avoid receiving healthcare services, a result that is compounded by the fact that poor people are often unemployed or working in more hazardous conditions than other people, requiring more medical services.

Aging of the population is affecting the healthcare expenditure as well, increasing demand for many health treatments, especially those related to chronic diseases. This demand in the upcoming years will likely be unable

to be supported by an adequate supply due to the decrease in portion of the people taking part in the labor force, who are the major contributors of the healthcare systems.

Finland is currently considering a complete reform of the healthcare system¹⁴⁰ with the purpose to contain these two problems. The plan aims to reduce the multichannel funding system to just one with a collection of the resources at a national level, moving the administration of the system to the regions and eliminating the role of Kela in providing partial reimbursements for private healthcare expenditures. This reform would make the Finnish healthcare system more similar to the Italian one.

On the other side, Italy continues to cut resources provided to the regions¹⁴¹ with the aim to contain the health expenditure, which is still above the level of the funds collected. In the long term, cutting resources will make the Italian Healthcare unsustainable.

In both countries there are many causes of this gradual increase of healthcare expenditure.¹⁴² First, the growing demand by the citizens for healthcare services and treatments free of charge extends the waiting times, especially when these treatments are not necessary. Second, the usage of treatments is often improper: less expensive treatments are overused with no noticeable improvements in the health of patients, creating a waste of resources, while more expensive treatments that could bring real improvements unfortunately are underused, causing inefficiencies. Third, the technological development causes improvements in the quality of healthcare but are slowly implemented because they are very expensive

¹⁴⁰ Kallioma-Puha L., Kangas O., 2016, *In-depth reform of the healthcare system in Finland* in *ESPN Flash Report 2016/34*, European Social Policy Network, Finland.

¹⁴¹ Age.na.s, 2015, *Andamento spesa sanitaria nazionale e regionale 2008–2014*, Roma.

¹⁴² Fondazione GIMBE, 2016, *Rapporto sulla sostenibilità del Servizio Sanitario Nazionale 2016–2025*, Rome.

due to the cost of research and acquisition of new information. Fourth, there is a higher percentage of prescriptions for original medicinal products, which are costly, instead of equivalent ones that contain the same active substance.

If either healthcare system begins to require a greater contribution through out-of-pocket payments by the households, the role of private health insurances could become relevant. As we have seen in Table 3.6 and Table 3.11, the amount of private health insurance policies have grown in recent years. The perception of an uncertain future related to waiting times and out-of-pocket expenses that households will have to pay to receive proper medical services in public hospitals will influence people to pay for certain private policies, with the benefit of knowing the medical coverage bought and the amount of premium they have to pay in advance. This scenario will become very likely if more medical services that were once free start to have a cost or if costs of medical services continue to increase.

Avoiding this scenario is possible if everyone would personally contribute to improve the welfare in our countries. Health insurance is not only “affordable” in economic terms but also in the quality perceived, because our health is not just a normal good but the most important one we have. The resources available are often not administered in the best way, neglecting other solutions to improve the general wellbeing of the citizens and using those available in services that do not bring expected benefits, with the conclusion that spending more does not mean spending better.¹⁴³ Patients and health outcomes should be the center of the care¹⁴⁴ with services built around them instead.

¹⁴³ Dirindin N., 2012, *Perché e come salvaguardare il welfare in Animazione Sociale – febbraio*, Gruppo Abele, Torino.

¹⁴⁴ Teperi J., Porter M., Vuorenkoski L., Baron J., 2009, *The Finnish Health Care System: A Value-Based Perspective*, Sitra Reports, Helsinki.

4.3 Potential Developments

Looking at the analysis and the issues discussed previously I think these two countries must focus on four pillars: Openness, Efficiency, Equity and Prevention. They can be imagined as four table legs; if one of them is missing, the table falls.

Openness by the administration regarding resources and their monitoring can guarantee a better allocation of the demand of healthcare services, letting physicians decide the best hospital to refer their patients and how patients can receive the best treatments as soon as possible. This will encourage competition between hospitals and consequently reduce waiting times.

The information provided should be accessible, clear, user friendly, up to date, and reliable. If a patient knows he can access reliable medical assistance with short waiting times near his home, he will not consider moving to other regions to receive treatment.

Efficiency in the use of resources reduces the health expenditure and optimizes the quality of treatments given to the patients. Italy and Finland should eliminate non beneficial treatments that are just creating waste inside the healthcare systems. On the other hand, resources must be used to finance appropriate high-value treatments as much as possible, resulting in lower costs and faster improvements in the health of patients.

Prevention is becoming a fundamental aspect of healthcare systems. Not only are vaccinations and other preventive medical services important, but the educational system is also very important. An educated patient who knows the relevant role of doing regular physical activity, eating well, and reducing or avoiding drinking and smoking will be probably less costly to

the healthcare system. Prevention also includes a patient considering signing a private health insurance contract if he knows that out-of-pocket expenses for some treatments will become unsustainable. Other than educated patients, we need educated and competent physicians, who know the optimal treatment to use in each situation to avoid waste or inefficiencies.

Equity is the four pillar. Differences in the access of healthcare should not exist. I believe that private health policies will acquire a big role in the future in bringing equity to healthcare, both through profit and non-profit insurance companies. If a small part of the wage is directed to finance the Integrated Health Fund or spent in a health insurance policy when his health is still in good conditions, a patient will not be worried about future unforeseen expenses or long waiting times since he can rely on a proper and efficient coverage guaranteed by his private health policy.

In the case of profit insurance companies, determination of premiums of health policies can become more accurate through the use of electronic bracelets that will constantly monitor the health status of the people. Those electronic devices will lead to a healthy lifestyle through discounts in premiums and in other various services based on improvements based on the conservation or improvement of the health status over time.

Conclusions

This thesis compared two health insurance systems, starting with the basics of general insurance and the fundamental elements of health insurance in chapter one, which were used to develop the analysis described in the following chapters. We have established a global picture of Finland and Italy, highlighting their aging populations and the chronic, age-related diseases these societies are suffering from as a result. Then I went deeper into the specifics of each health insurance system: the Finnish one, based on the Scandinavian model with three-level funding and municipal organization, and the Italian one, with one-channel funding and regional organization. Despite the high quality of care given, these systems also had some critical issues such as long waiting times and inequality in terms of access to care. The suggestions I have made involve openness, efficiency, equity and prevention: four essential key points for maintaining a sustainable and efficient health insurance system. These elements are also vital for creating a system open to everyone in the future, without the risk of a universalist threat where only people who can afford the costs can have access to healthcare.

The main result is that, despite the fact that these two health insurance systems are organized in different ways, they both aim to provide universal coverage, which unfortunately is not guaranteed in some cases. Finland is currently reforming its healthcare system, reducing the three funding levels to only one and organizing the system at a regional level. While developing a more similar healthcare system, Finland should learn from the Italian case, observing that despite regional organization some critical issues still persist, so other measures of control are also needed. At

present, Finland has a younger population than Italy, but trends indicate that in the next 40 years it will likely face the same phenomenon, with probable sustainability issues.

I have studied and compared these two systems using data from primary sources to find critical issues and suggest ideas from a future-oriented perspective. I did encounter some problems while collecting data due to the complexity of the subject in addition to some technical challenges due to material written in Finnish, a language I am not experienced with. This made analysis more difficult, and the conclusion probably could have been developed further given more relevant data, but this was not possible with the limited information available. With the resources at hand, I have presented several solid conclusions; however, if greater quality data was available the accuracy of these results could be made even more certain.

Based on my research, projecting a scenario with a reinforced prevention campaign could yield a useful outcome, especially with regard to age-related diseases, providing a background from which the systems can be made more efficient, avoiding waste and supporting the public healthcare system with a private insurance system to fill in resource gaps with funding from both employees and employers.

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